

STATE OF TEXAS

IMMEDIATE RADIO COMMUNICATIONS INTEROPERABILITY PLAN



“Interoperability means an essential communications link within public safety and public service wireless communications systems which permit units from two or more different entities to interact with one another and to exchange information according to a prescribed method in order to achieve results”.

STATE OF TEXAS

IMMEDIATE INTEROPERABILITY OPERATIONS PLAN

TABLE OF CONTENTS

- I. AUTHORITY
- II. BACKGROUND
- III. PURPOSE
- IV. CONCEPT OF OPERATIONS
- V. FREQUENCY ALLOCATION AND ASSIGNMENTS
- VI. PLAN DEVELOPMENT AND MAINTENANCE

I. AUTHORITY

The 77th session of the Legislature, in an effort to best utilize resources, facilitate radio interoperable communications between state agencies and local governments, and enhance response capabilities of government during a time of need, established the Interagency Radio Work Group (IRWG) to develop a state agency communications network. The IRWG members,¹ in an effort to address interoperability, developed and signed a Memorandum of Understanding (MOU) on March 27, 2001.

After this MOU was signed, it became clear that there was a need to encompass as many other public safety entities as possible. The IRWG developed and proposed a statewide plan to address immediate interoperability through the use of available frequencies. This plan, the **TEXAS IMMEDIATE INTEROPERABILITY PLAN**, was approved by the IRWG on January 22, 2003. This plan expands the initial MOU that was signed by the State Agencies and the Sheriffs Association.

II. BACKGROUND

Due to the diversity of state and local government missions, many different radio communication systems are currently being utilized. Concurrently, many of these systems are proprietary in nature and do not communicate with other systems or users. This limits and impairs the government's ability to respond and meet the needs of the citizens.

The state recognizes the potential for natural and man-made occurrences to affect the lives and property of the citizens of Texas. These occurrences can be in the form of weather, accidents, or aggression by other nations' forces. In any case, the state and local governments' ability to respond is based in a large part on the availability of adequate communications. The radio communications system should provide connectivity between command personnel and secondary personnel from two or more public safety and/or public service agencies at the local, state, tribal, and federal levels. The IRWG identified the need for interoperable radio communications in three specific areas:

- Day-to-Day: radio communications during routine public safety operations
- Mutual Aid: radio communications supporting a joint immediate response to a catastrophic or large-scale incident or natural disaster. (This would also include tactical and logistical communications supporting the operational communications.)
- Task Force: radio communications supporting local, state, tribal, and federal agencies collaborating for an extended period of time to address a particular problem.

¹ Texas Department of Public Safety, Texas Department of Transportation, Texas Parks and Wildlife, Texas Alcoholic Beverage Commission, Texas Department of Criminal Justice, Texas Forest Service, Texas Youth Commission, Texas Sheriffs Association.

III. PURPOSE

The primary purpose of this plan is to facilitate *immediate* interoperable communications between public safety entities operating in the state of Texas. This plan is designed around Very High Frequency (VHF) high-band analog radio equipment that is utilized by most state agencies and many other local and federal public safety entities. The members of the IRWG have agreed to utilize the Project 25 standard for future purchases that require digital applications for mission critical public safety personnel. The IRWG has identified specific analog VHF frequencies to be utilized by First Responders for interagency communications that make up this immediate plan. Participation in this plan is accomplished through the submittal of an MOU (see attachment 1) to the IRWG.

The goal of this plan is to promote immediate interoperability between public safety entities at the least cost to the state through the efficient use of existing radio communication systems. The IRWG identified a core group of frequencies currently being used in law enforcement, fire, mutual aid, air, hospital and EMS to utilize for interoperable communications. It is important to note that some of these interoperable frequencies are in use daily across the state. This plan is not intended to preclude the use of these frequencies in that manner, but only to coordinate their usage when necessary.

The IRWG also recognized that all users of these frequencies do not reference the designated channels by the same terminology. As a result, the Immediate Interoperability Plan assigns new identifiers to these frequencies to assure consistency in terminology throughout the state. The frequencies identified by the IRWG are listed below with their current and new interoperable names. It is strongly recommended that all participating agencies change their current channel names in their radios to those listed in the Immediate Interoperability Plan if their equipment is able to support the modification. (see attachment 2).

<u>Frequency</u>	<u>Current Name</u>	<u>Interoperable Name</u>
154.950 RX / TX	Intercity Mobile or Car-to-Car	Texas Law 1
155.370 RX / 154.950 TX	Intercity Mobile-to-Base	Texas Law 2
155.475 RX / TX	National Law Enforcement Interoperability Channel	Texas Law 3
154.280 RX / TX	Fire Mutual Aid "A"	Texas Fire 1
154.265 RX / TX	Fire Mutual Aid "B"	Texas Fire 2
154.295 RX / TX	Fire Mutual Aid "C"	Texas Fire 3
155.340 RX / TX	Hospital EMS Radio Network	Texas Medical 1
151.385 RX / TX	Air-to-Ground *	Texas Air 2

* Texas Air 1 is reserved and not available for use in this plan

IV. CONCEPT OF OPERATIONS

Texas Law 2 has been designated as the primary calling channel for interoperable communications between mobile units and a law enforcement/public safety base radio. Personnel involved in a multiple agency event should use plain language in all communications. Use of ten-codes or other radio jargon is discouraged. Mobile units should contact their agency first to determine the assigned frequency for an event. If a unit does not have contact with their agency, they should contact the event agency on Texas Law 2. **It is imperative that law enforcement/public safety base stations continually monitor the Texas Law 2 channel.**

The telecommunications operator responding to the unit will direct, coordinate and/or control communications unless an incident commander is identified. The operator or incident commander will designate the channel to be used. If the use of this channel causes significant interference to an agency that uses this frequency on a day-to-day basis, the incident commander shall designate another frequency to be used. The following priority levels will determine channel selection.

Level 1. Disaster or extreme emergency operation for mutual aid and inter-agency communications

Level 2. Emergency or urgent operation involving imminent danger to life or property

Level 3. Special event control, normally preplanned (including Task Force operations)

Level 4. Interagency communications during non-emergency events

Abuse of the interoperable frequencies cannot be tolerated. All users must be aware that the radio spectrum is a shared public resource and must not be used like a party-line telephone. The radio system is licensed for public safety use only and every effort should be made to eliminate all unnecessary traffic from the air. Telecommunications operators should be encouraged to routinely police these channels advising violators that the channels are restricted for official public safety purposes only. Agencies are encouraged to report abuses to:

The Department of Public Safety
Radio Frequency Unit
P.O. Box 4087
Austin, Texas
78773-0250
512 424-2000

V. FREQUENCY ALLOCATION AND ASSIGNMENTS

Mobile-to-Base (Texas Law 2)

An encode tone of 127.3 Hz. will be added on the transmit side of this channel on mobile and portable radios. A decode tone of 127.3 Hz. will be added to the receive side of state agency base radios. Local agencies are encouraged to do the same. This is being done in order to limit the amount of traffic that the telecommunication operators will need to monitor.

All agencies are encouraged to add the eight frequencies (attachment 2) to their mobile and portable radios. Some agencies may have space limitations in their equipment, restricting the number of channels available. A recommended priority list in such cases is (1) 154.950 Texas Law 1, (2) 154.950/155.370 Texas Law 2, (3) 154.280 Texas Fire 1, and (4) 155.340 Texas Med 1. Scan lists should be tailored to the needs of the agency, however; it is recommended that Texas Law 1 be scanned.

Alphanumeric Radio Displays

Alphanumeric radio displays should be consistent with the examples listed below per your radios capability. **Any reference to old identifiers should be removed from the radio display.**

Examples:

3-Digit – TL1 / TF1 / TM1 / TA2

6-Digit – TEX L1 / TEX F1 / TEX M1 / TEX A2

8-Digit – TEX LAW1 / TEXTFIRE1 / TEX MED1 / TEX AIR2

>8-Digit – TEXAS LAW1 / TEXAS FIRE1 / TEXAS MED1 / TEXAS AIR2

VI. PLAN DEVELOPMENT AND MAINTENANCE

- A. The Interagency Radio Work Group (IRWG) is responsible for the development, maintenance, review, and distribution of the respective plan.
- B. Changes to this plan may be recommended in writing to:

Department of Public Safety
Radio Frequency Unit
P.O. Box 4087
Austin, Texas
78773-0250

(Attachment 1)

MEMORANDUM OF UNDERSTANDING
For
IMMEDIATE INTEROPERABLE COMMUNICATIONS AMONG TEXAS GOVERNMENTAL ENTITIES

MEMORANDUM OF UNDERSTANDING: Relating to interoperable communications between public safety entities and the Texas Interagency Radio Work Group (IRWG).

This memorandum of understanding (hereafter referred to as MOU) is submitted by

_____ (agency or entity)
(hereafter referred to as APPLICANT)

_____ (address)

_____ (area code + phone number)

By virtue of signing and submitting this MOU, APPLICANT affirms it will comply with the operational and technical guidelines of the plan, and the conditions prescribed herein.

The APPLICANT agrees to and shall abide by the following conditions:

- To operate in accordance with all Federal, State, County, and City laws/ordinances.
- To utilize “plain language” for all transmissions.
- To monitor the Calling Channel(s) at an emergency or incident
- To identify inappropriate use and mitigate the same from occurring in the future.
- To mitigate contention for channels by exercising the Priority Levels identified in this plan.
- To share channels between all public safety entities without respect to discipline.
- Minimize traffic on all interoperability channels to maximize usage during emergencies.

(NOTE): The preceding conditions are the primary requirements for participation in this plan. A complete list of the operational and technical requirements is detailed in the plan.

The applicant will use this interoperability plan with _____/_____ radios (**quantity of mobile/portable units**) and will notify the IRWG if the number of radios in use increases by more than 5% of the number of units listed above

_____ Submitting Authority _____ Date

_____ Accepting Authority (IRWG) _____ Date

Please return to:
Department of Public Safety
Radio Frequency Unit (attn. IRWG)
P.O. Box 4087, Austin, Texas 78773-0250
Ph. 512-424-2000

MOBILE & PORTABLE RADIO CHANNELS

INTEROPERABLE NAME	CURRENT NAME	RECEIVE	TRANSMIT	STONE	RECOMMENDED USE
“TEX L1” (Alpha Display on Radio) [When Using Say: “Texas Law 1”]	Intercity Mobile or Car-to-Car	154.950	154.950	None	Contact between law enforcement and public safety agencies
“TEX L2” (Alpha Display on Radio) [When Using Say: “Texas Law 2”]	Intercity Mobile-To-Base	155.370	154.950	127.3 (Transmit Only)	Contact between law enforcement base radios and public safety agencies
“TEX L3” (Alpha Display on Radio) [When Using Say: “Texas Law 3”]	National Law Enforcement Interoperability Channel	155.475	155.475	None	PRIMARY: Contact between law enforcement and public safety agencies *SECONDARY: TBD by the on-scene incident commander
“TEX F1” (Alpha Display on Radio) [When Using Say: “Texas Fire 1”]	Fire Mutual Aid “A”	154.280	154.280	None	PRIMARY: Contact between fire agencies and public safety agencies *SECONDARY: TBD by the on-scene incident commander
“TEX F2” (Alpha Display on Radio) [When Using Say: “Texas Fire 2”]	Fire Mutual Aid “B”	154.265	154.265	None	PRIMARY: Contact between fire agencies and public safety agencies *SECONDARY: TBD by the on-scene incident commander
“TEX F3” (Alpha Display on Radio) [When Using Say: “Texas Fire 3”]	Fire Mutual Aid “C”	154.295	154.295	None	PRIMARY: Contact between fire agencies and public safety agencies *SECONDARY: TBD by the on-scene incident commander
“TEX M1” (Alpha Display on Radio) [When Using Say: “Texas Med 1”]	Hospital and EMS Radio Network	155.340	155.340	None	PRIMARY: Contact between hospitals, EMS, and public safety agencies *SECONDARY: TBD by the on-scene incident commander
“TEX A2” (Alpha Display on Radio) [When Using Say: “Texas Air 2”]	Texas Forest Service Air-to-Ground	151.385	151.385	127.3 (Transmit and Receive)	Air-to-Ground contact with state/federal aircraft assigned to a particular incident (Texas Air 1 is reserved and not available for use in this plan)