

# **Emergency Communications**



## Field Guide (FY23)



Texas Military Department Emergency Communications Camp Mabry, Austin, TX 78703



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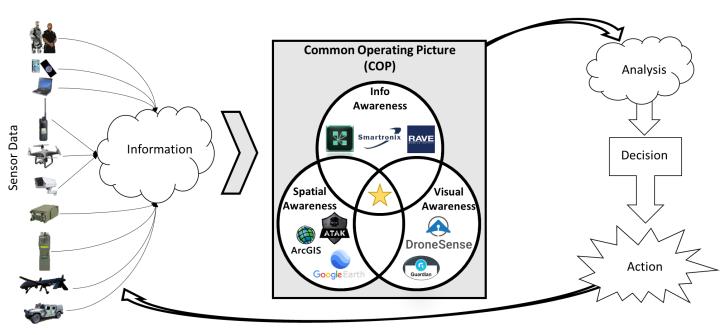




### What is the Emergency Communications Branch?



JFHQ J6 -EMERGENCY COMMUNICATIONS BRANCH (Ecomms). The Texas Military Department (TMD) J6-Ecomms is responsible for providing interoperable technical solutions for the Command and Control of Texas Military Forces to the Governor, the Adjutant General, TMD Leadership, and State Partners during emergencies and Domestic Operations (DOMOPS). They also represent the Texas Military Forces in the State sanctioned Communications Coordination Group. Command and control is enabled by acquiring, programming, operating, maintaining and training personnel on a wide array of devices and systems. End user devices provide sensor data that is then integrated efficiently to become information. That information is then ingested into an inter-agency Common Operating Picture (COP). The information presented in this COP should be easily understood amongst all agencies involved and provide a full understanding of the current situation in nearreal time. The three pillars of a COP are Information Awareness, Spatial Awareness, and Visual Awareness. Timely and accurate updates to these three pillars are essential to reducing risk and significantly improving operations. All these devices and systems are then tracked and monitored at the J6 Network Operations Center (NOC).





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### Communication Coordination Group (CCG)

TX Govt Code § 418.051

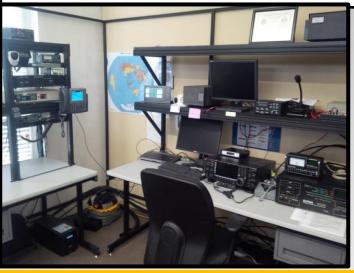


**MISSION:** to facilitate interagency coordination and collaboration to provide efficient and effective planning and execution of communications support to joint, interagency, and intergovernmental task forces. [Lead Agency: Texas Division of Emergency Management (TDEM)]

#### Members

#### (1) the Texas military forces;

- (2) TDEM
- (3) the Federal Emergency Management Agency;
- (4) federal agencies that comprise Emergency Support Function No. 2;
- (5) the telecommunications industry, including cable service providers, as defined by Section 66.002, Utilities Code;
- (6) electric utilities, as defined by Section 31.002, Utilities Code;
- (7) gas utilities, as defined by Sections 101.003 and 121.001, Utilities Code;
- (8) the National Guard's Joint Continental United States Communications Support Environment;
- (9) the National Guard Bureau;
- (10) amateur radio operator groups;
- (11) the Texas A&M Forest Service;
- (12) the Texas Department of Transportation;
- (13) the General Land Office;
- (14) the Texas A&M Engineering Extension Service;
- (15) the Public Utility Commission of Texas;
- (16) the Railroad Commission of Texas;
- (17) the Department of State Health Services;
- (18) the judicial branch of state government;
- (19) the Texas Association of Regional Councils;
- (20) the United States Air Force Auxiliary Civil Air Patrol, Texas Wing;
- (21) each trauma service area regional advisory council;
- (22) state agencies, counties, and municipalities affected by the emergency, including 9-1-1 agencies; and
- (23) other agencies as determined by the division.







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### Network Operations Center (NOC)



**MISSION:** Monitors, manages, de-conflicts, and coordinates all JTF Signal MRPs and networks utilized in support of the DSC, JTFs and/or Civil Authorities during domestic operations. You can call the NOC at (512) 782-1020.

Trigger: NOC stands up once communication MRP orders are published. SOC directs the stand up of the Communications Coordination Group (CCG) at the NOC when disasters require more space for the CCG than the SOC can provide.						
Description NOC provides one large centralize the IT professional of TMD and Pa maintain Situational Awareness of and teams supporting domestic op	rtnered Agencies to C4ISM solutions	STAR Submittals • Texas Interoperable Communications Package MRP • TAGs Mission Command Trailer MRP • Joint Cyber Support Team • Joint Cyber Response Team • Mobile Emergency Operations Center MRP • Joint Incident Site Communications Capability MRP • HF Team MRP				
Coordinating Entities • TMD (ARNG, ANG, TXSG) • JTFs • Local Authorities • Telecom Industry Partners • TXDPS • TXDIR • TFS • TXDOT • FEMA	DHS     NCS     Army MARS     ARES     RACES     FCC     CCG     ARCYBER     ARNORTH     NGB	Actions Direct support to JTF Signal – NOC NCOIC Communication MRPs deploy and the NOC tracks all movement and status. – NOC OIC Supports JTF Signal by centrally managing the networks of all Communication MRPs – NOC OIC Troubleshoot issues with organic equipment (SINCGARS, PRC-150, Motorola) and Economis equipment JE Economis Network Admin Center of information flow between deployed MRPs and JTF Signal – NOC OIC				
Supported Mission Sets (if re • Command and Control (C2) • Cyberspace Support • Cyber Incident Mitigation • Civilian Critical Infrastructure (Protection & Augmentation) • Incident Augmentation)		Coordinates and facilitates retrograde actions – NOC OIC     Critical Information     The FCC has plenary authority over the nation's spectrum before, during and after disasters.				
<ul> <li>Incident Awareness and Assessi</li> <li>Search and Rescue (SAR)</li> <li>B2C2WG</li> <li>Position Location Tracking         <ul> <li>Transportation Movement</li> <li>Emergency Evacuation Support</li> <li>Distinguished Visitor Movement</li> </ul> </li> </ul>	i	Texas Military Forces is a designated member of the CCG as directed under Texas Law in 2009, Sec 418.051, TX Gov. Code. Serve as branch of the SOC for ESF2. NOC and CCG are not combined, but rather co-located in				

#### Timeline

- Phase I: Pre-Incident
  - a.) Normal Operations -
  - b.) <u>Elevated Threat</u> –
  - c.) Credible Threat -

#### Phase II: Response

- a.) Initial Stand Up NOC / Stand Up CCG
- b.) Deployment Deploy LNOs / Retrograde Planning / Nodes Centrally Managed
- c.) Sustained Response Shelters In-Place / Hourly Comms Check / Maintenance & Sustainment

#### Phase III: Enabling Recovery and Transition

- a.) <u>Recovery</u> Coordinate with Local Authorities / Coordinate with Carriers / Maintenance & Sustainment continues / Inform JTF Signal once supported entities no longer need TMD support
- b.) Transition Retrograde Coordination / Decrease Posture / Inventory & PMCS





### NOC (cont.)



Chief, Emergency Communications

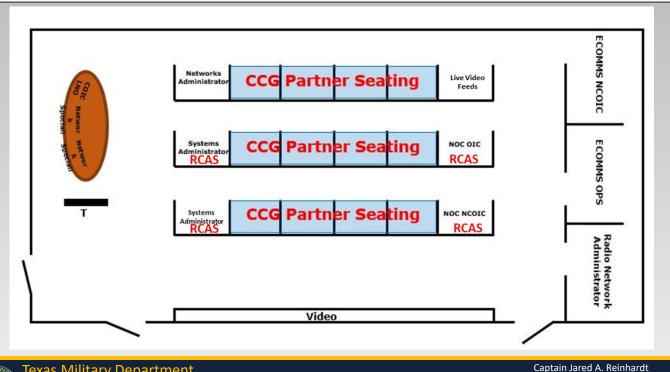
jared.a.reinhardt.mil@mail.mil

512-406-1935

**NOC IOC:** 1-3 personnel (temp detail) on duty in NOC from 0800-1800. Conduct basic reporting, FRAGO tracking and establish functioning video wall. Establish Battle Rhythm, CCIR, Alert Roster, Duty Roster, and Initial Running Estimates. Monnitor x5601 and x5001 when forwarded on Saturday, Sunday, and Evenings. Establish Log Book. Conduct Shift Change briefs and Daily NOC Hot Wash.

**NOC FOC:** Personnel assigned as primary / alternate Battle Captain and Battle NCO roles. RTO and COP / Video Wall Maintainer assigned. (2-5 pax) Operational Estimates. Establish NOC/J6 Incident email Inbox. All personnel on duty added to inbox.

Battle Rhythm (0600-1800: 7 days/week x 12 hours/day)
0530-6000 Arrive and stage NOC Ops; set up video wall as prescribed
0600-0700 all systems are live; begin conducting shift tasks
0830-0845 Prep conference room for 0900 Branch Chief Sync
0900-UTC Branch Chief Morning Sync
1000- Update PERSTAT upon receipt in NOC Inbox
1130-1200 Lunch for both shifts (rotate 30 mins max)
1245-1300 Prep conference room for 1300 Branch Chief Sync
1300-UTC Branch Chief Afternoon Sync
1500- COMSTATs are due to ng.tx.txarng.mbx.j6-ops@mail.mil
1730-1800 Shift Change prep (LOG for morning crew) Secure NOC





### What Do We Have?





**Motorola APX Next** is a Smart Radio with a touch screen and integrated with ATAK. Capable of VHF / UHF / 700 / 800 / Cellular. Compatible with AT&T FirstNet and Verizon sims. Near future update will enable WiFi hotspot capability.



**Somewear Labs Puck** is a portable re-chargeable satellite hotspot. This devices Bluetooth pairs with another device to provide short burst data services over the Emergency Management Satellite Services (EMSS) network.



Android Smartphone Cache Comprised of Verizon and AT&T devices Wireless Priority Services, GPS tracking enabled, user-friendly, and ATAK compatible with minimum of 64GB of storage capacity. Compatible with all mission command applications.



**Cradle Points** cellular broadband routers that provide services via multiple Cellular Service Providers. FirstNet Certified Band-14 supported. Certain models are capable of load balancing and traffic prioritization. Other models are 5G capable. Utilizing NetCoud network management suite.



ATAK (Android Team Awareness Kit) is a GOTS app for Android smartphones which uses GPS and maps to provide a real-time view of the Area of Operations. Compatible with Samsung devices and Guardian Portal.



**DroneSense** is an application and web-based platform which enables geographically dispersed end users to view high definition Small UAS live feeds from any device with network access.



**RAVE** is top-down mass-warning notification solution compatible with smart devices, computers, social media and Mutualink. Can send notifications via text messaging, voice call email, social media & in-App notification.



Adobe Connect is a collaboration application that allows the users to view multiple sets of information simultaneously. It facilitates file sharing, share screen, chatting, note sharing, and conference bridging. Also enables TMD to control access with mission partners.



**Starlink** is a newly developed, cost effective, commercial and residential, high bandwidth satellite solution with 120-200 Mbps upload speeds and 200-400 Mbps download speeds.



Network Radio Gateway provides Voice over IP (VoIP)/Radio over IP (RoIP) conferencing, radio bridging & remote radio config. capabilities. Interop. with cell phones, Motorola radios, PRC-152s, PRC-150s, PRC-148s, SINCGARS, & TOCNET.



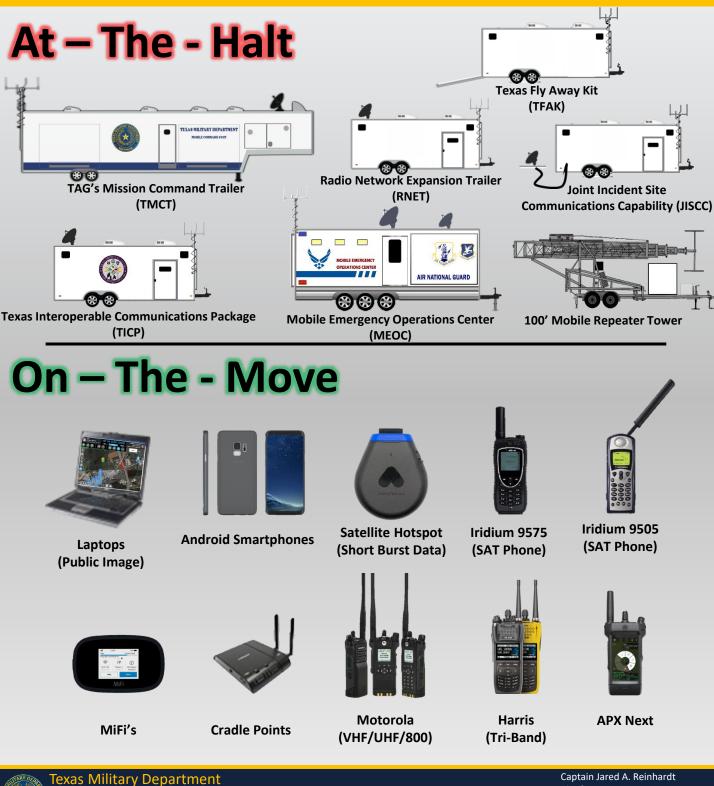
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### Types of Communication Assets





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### **Typical Communication Packages By Echelon** (Can be tailored to mission)



MiFi's upon request

if available

### BnMC / BDE MC



Motorola x 2

(Interoperable)

**DSCA Cell Phones x 2** (ATAK - Tracking)

MiFi's upon request

if available



**Public Laptop BnMC 2 Laptops BdeMC 4 Laptops** 

**MRP** 

**Cellular Broadband Router** BnMC x 1 router

**BdeMC x 2 routers** 

MiFi's upon request if available



Motorola x 2 (Interoperable) **DSCA Cell Phones x 1** (ATAK - Tracking)



Motorola x 4 (Interoperable)

> **DSCA Cell Phones x 2** (ATAK - Tracking)



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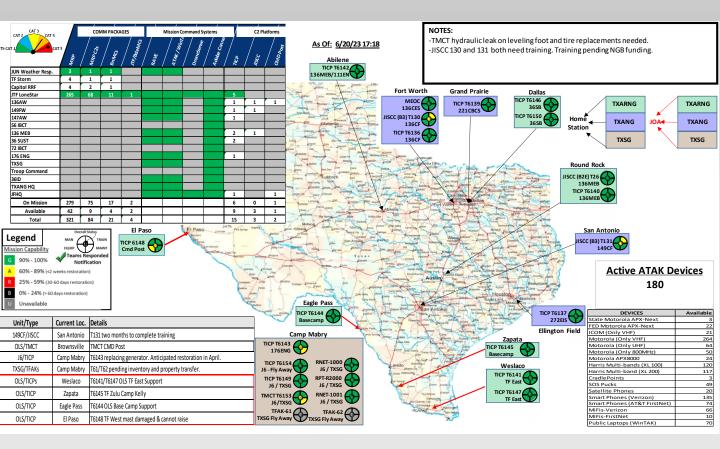
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**Dependent on Current Operations.** J6 Ecomms maintains a Running Estimate (example below) that is updated weekly. This depicts a snapshot of equipment status; remaining equipment in the strategic reserve; what equipment has been deployed; what units have the equipment and in support of what mission. Ecomms must maintain a strategic reserve for follow-on concurrent missions.

**IMPORTANT:** Though the equipment may be "Available" it does not mean you may request all the remaining equipment. Requests should only be based on what is necessary for mission success... in other words if you don't have it the mission will fail or be severely hindered. After this base number is determined it is best practice to increase the request by <u>15-20%</u> to account for unforeseen surges, malfunctioning equipment, or other unplanned variables.







How Do I Get It? (RFA Process)



### To get these:



Laptops

(Public Image)



Android Smartphones



Satellite Hotspot (Short Burst Data)



Iridium 9575 (SAT Phone)



Iridium 9505 (SAT Phone)



MiFi's



**Cradle Points** 



Motorola

(VHF/UHF/800)

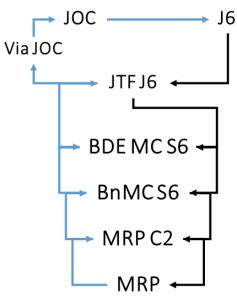


Harris (Tri-Band)



APX Next

Submit the request following this process:



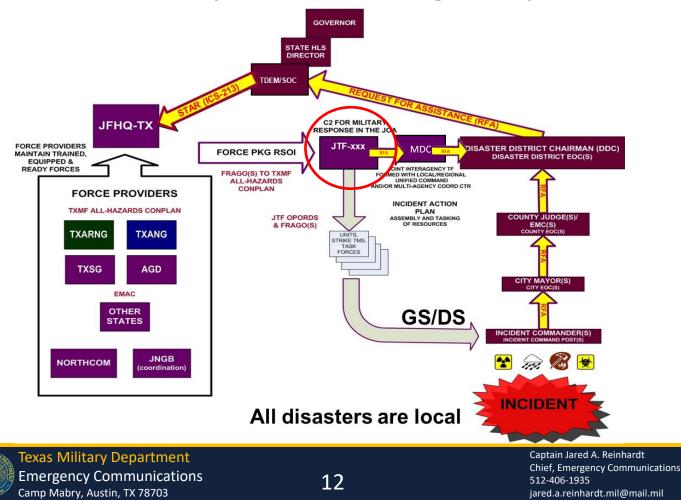


### How Do I Get It? (STAR Process)





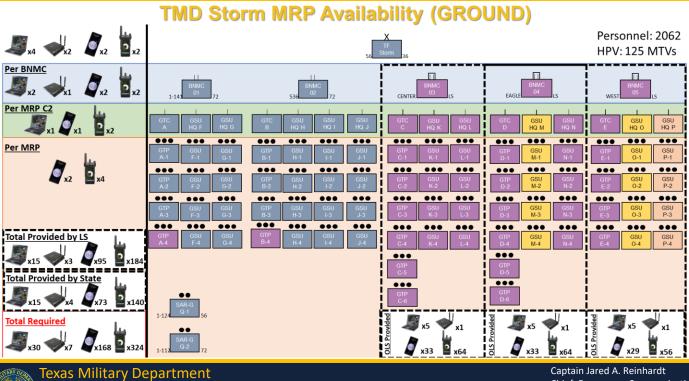
### Submit the request following this process:







			WARNORD 01 BPT	
MRP	SMALL (LVL III) (TS – CAT 1)	MEDIUM (LVL II) (CAT 1-2)	LARGE (LVL I) (CAT 3-5)	
	QTY	QTY	QTY	
BDEMC	0	1	2	
BNMC	1	2	<del>2</del> 4	
Rotary Wing	2	2	<del>3</del> EMAC	
GTCHQ	1	2	<del>2</del> 4	
GTP	4	10	20	
TICP	2	2	8	
GSU		5	10	





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### State of Texas Assistance Request (STAR)



The state of Texas uses WebEOC, an online crisis management system, to support resource request management.

- Local jurisdictions, regional entities, state agencies and organizations may request resources to support disaster response operations.
- The Texas SOC fulfills requests for assistance with available resources from Emergency Management Council members, available contracts or vendors, interstate or federal resources, as available.
- The chart below provides an overview of emergency management coordination in Texas.

	STAR Overview
itate	Texas State Operations
.evel	Center
District S	Disaster District Emergency
Level L	Operations Center
Local Level	City/County

How a Request becomes a STAR:

- Locals submit a State of Texas Assistance Request (STAR) for a need that is beyond their capacity to fill and then submit the STAR through WebEOC.
- STAR Requests are then received by the Disaster District Coordinator and either filled by the disaster district with resources available within the district or pushed to the State Operations Center (SOC).
- Once a STAR is received at the SOC level, it is assigned to the responsible agency to fill, or sourced through other state partners, or through the Emergency Management Assistance Compact (EMAC) national mutual aid system.
- If a Federal Disaster Declaration has been granted, the SOC will push any request the state cannot fulfill to FEMA or the lead federal agency for assistance in fulfilling.

For additional information please visit: https://tdem.texas.gov/local-officials-resources/



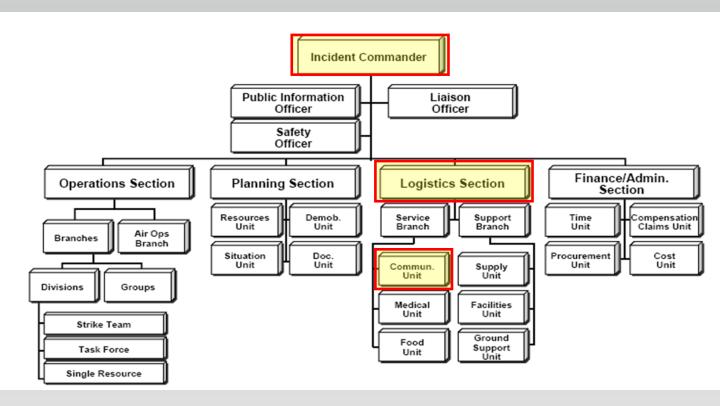


### Where do I get my Frequencies or Channels?



Local Authorities respond to disasters using the National Incident Management System and the Incident Command System Structure. Below is an example of the Incident Command System Task Organization. Highlighted are the individuals responsible for assigning Channels and Frequencies. The responsible parties in order are: 1. Communications Unit Leader (COM-L); 2. Logistics Sections Chief; 3. Incident Commander. Attempt to gain Channels and Frequencies from these individuals in that order.

**IMPORTANT:** They will need to know what Channels and Frequencies you already have programmed into your radios. These are listed in the following pages. All J6 Ecomms radios are programmed with the Texas Statewide Inter-operable Channels via TxDPS radio programmers.







### Pre-Programmed Channels / Frequencies (VHF Lo)



#### VHF Lo Frequencies with Channels (aka Tactical Frequencies)

Use of all Frequencies in this channel plan are controlled by the J6. The use of these frequencies requires J6 authorization in writing.

Freq	Ch Name	Use	Remark
34.175	CALLING	TXMF Calling/Hailing Channel	Note 1
34.200	CMD 1	TXMF Bde/JTF Command Channel	Note 1
34.225	CMD 2	TXMF Bde/JTF Command Channel	Note 1
34.250	CMD 3	TXMF Bde/JTF Command Channel	Note 1 SINCGARS
34.275	CMD 4	TXMF Bde/JTF Command Channel	Note 1 RT-1523
34.300	OPS 1	TXMF Operational TF Channel	Note 1
34.325	OPS 2	TXMF Operational TF Channel	Note 1
RC-148 34.350	OPS 3	TXMF Operational TF Channel	Note 1
34.375	OPS 4	TXMF Operational TF Channel	Note 1
34.400	OPS 5	TXMF Operational TF Channel	Note 1
34.425	TAC 1	TXMF Tactical Channel	Note 1
34.450	TAC 2	TXMF Tactical Channel	Note 1
34.475	TAC 3	TXMF Tactical Channel	Note 1
34.500	TAC 4	TXMF Tactical Channel	Note 1
34.525	TAC 5	TXMF Tactical Channel	Note 1
34.550	TAC 6	TXMF Tactical Channel	Note 1
34.650	TAC 7	TXMF Tactical Channel	Note 1
34.675	TAC 8	TXMF Tactical Channel	Note 1
34.700	TAC 9	TXMF Tactical Channel	Note 1
34.725	TAC 10	TXMF Tactical Channel	Note 1
34.750	TAC 11	TXMF Tactical Channel	Note 1
34.775	TAC 12	TXMF Tactical Channel	Note 1
34.800	TAC 13	TXMF Tactical Channel	Note 1
34.825	TAC 14	TXMF Tactical Channel	Note 1
34.850	TAC 15	TXMF Tactical Channel	Note 1
34.875	TAC 16	TXMF Tactical Channel	Note 1
34.900	CONVOY	TXMF CONVOY	Note 1
36.900	VLOTAC4	Nationwide CONVOY	Note 2
38.500	VLOTAC2	Nationwide TACTICAL	Note 2
38.700	VLOTAC3	Nationwide AIR TO GROUND	Note 2
RC-152 38.900	VLOMED	Nationwide MEDEVAC	Note 2
40.500	VLOTAC1	Nationwide CALLING CHANNEL	Note 2

Note 1 - supported by TICP and JISCC Mobile antenna

Note 2 - Not supported by TICP and JISCC mobile Antenna; requires using OE254

PRC-150





### Pre-Programmed Channels / Frequencies (VHF Hi)



#### VHF Hi Frequencies with Channels

Use of all Frequencies in this channel plan are controlled by the J6. The use of these frequencies requires J6 authorization in writing. Zones A, B, & C are for TMD operations. Zone "NGB" are Nationwide National Guard Channels.

Zone	Ch	Ch Name	Mode	Rev	Trans Freq	Rev	Trans	Trans	Note	Use/Limitations
				Freq		CTCSS/NAC	CTCSS/NAC	Deviation		
		-		-			-	-	-	
					TEXAS N	ATIONAL GUA	RD ROUTINE C	HANNELS		
A	1	NG CALL	Analog	149.8375	149.8375	127.3	127.3	2.5 KHz	1	TXNG Calling Channel
A	2	A1	Analog	140.4125	140.4125	127.3	127.3	2.5 KHz	1	TXNG Tactical Channel
A	3	A2	Analog	142.4000	142.4000	127.3	127.3	2.5 KHz	1	TXNG Tactical Channel
A	4	A3	Analog	143.6375	143.6375	127.3	127.3	2.5 KHz	1	TXNG Tactical Channel
A	5	A4	Analog	139.5750	139.5750	CSQ	127.3	2.5 KHz	1	TXNG Air-to-Ground Channel
A	6	A5	Analog	141.6750	141.6750	127.3	127.3	2.5 KHz	1	TXNG Tactical Channel
A	7	CONVOY	Analog	148.8250	148.8250	CSQ	2029	2.5 KHz	1	TXNG Convoy Channel
A	8	Repeater	Analog	149.8375	168.3500	127.3	127.0	2.5KHz	1	TXNG AdHoc Repeater**
	·	·							·	**Note: Repeater must be installed and working
										•
					TEXAS NATI	ONAL GUARD	CONTINGENC	<b>F CHANNEL</b>	s	
В	1	B1	Analog	150.7375	150.7375	156.7	156.7	2.5 KHz	2	TXNG Tactical Channel
В	2	B1 RPT	Analog	150.7375	143.7375	156.7	156.7	2.5 KHz	2	TXNG Tactical Repeater Channel**
В	3	B2	Analog	150.5875	150.5875	156.7	156.7	2.5 KHz	2	TXNG Tactical Channel
В	4	B2 RPT	Analog	150.5875	143.7125	156.7	156.7	2.5 KHz	2	TXNG Tactical Repeater Channel**
В	5	B3	Analog	149.8500	149.8500	156.7	156.7	2.5 KHz	2	TXNG Tactical Channel
В	6	B3 RPT	Analog	149.8500	140.4125	156.7	156.7	2.5 KHz	2	TXNG Tactical Repeater Channel**
В	7	B4	Analog	168.3500	168.3500	156.7	156.7	2.5 KHz	2	TXNG Tactical Channel
В	8	B4 RPT	Analog	168.3500	163.1000	156.7	156.7	2.5 KHz	2	TXNG Tactical Repeater Channel**
В	9	B5	Analog	150.4750	150.4750	156.7	156.7	2.5 KHz	2	TXNG Tactical Channel
В	10	B5 RPT	Analog	150.4750	143.6625	156.7	156.7	2.5 KHz	2	TXNG Tactical Repeater Channel**
В	11	B6	Analog	150.1000	150.1000	156.7	156.7	2.5 KHz	2	TXNG Tactical Channel
В	12	B6 RPT	Analog	150.1000	142.2375	156.7	156.7	2.5 KHz	2	TXNG Tactical Repeater Channel**
В	13	B7	Analog	150.0750	150.0750	156.7	156.7	2.5 KHz	2	TXNG Tactical Channel
В	14	B7 RPT	Analog	150.0750	143.6375	156.7	156.7	2.5 KHz	2	TXNG Tactical Repeater Channel**
		•	•	•						**Note: Repeater must be installed and working
				TEXA	S NATIONAL		TINGENCY CH	ANNELS (DIO	SITAL)	
С	1	CI	P25 Digital	150.7375	150.7375	\$293	\$293	2.5 KHz	3	TXNG Tactical Channel
С	2	C1 RPT	P25 Digital	150.7375	143.7375	\$293	\$293	2.5 KHz	3	TXNG Tactical Repeater Channel**
С	3	C2	P25 Digital	150.5875	150.5875	\$293	\$293	2.5 KHz	3	TXNG Tactical Channel

~		<u>.</u>	P20 Digital	100.1210	100.1010	3273	3273	2.7 6112		TAING Tacucal channel
С	2	C1 RPT	P25 Digital	150.7375	143.7375	\$293	\$293	2.5 KHz	3	TXNG Tactical Repeater Channel**
С	3	C2	P25 Digital	150.5875	150.5875	\$293	\$293	2.5 KHz	3	TXNG Tactical Channel
С	4	C2 RPT	P25 Digital	150.5875	143.7125	\$293	\$293	2.5 KHz	3	TXNG Tactical Repeater Channel**
С	5	C3	P25 Digital	149.8500	149.8500	\$293	\$293	2.5 KHz	3	TXNG Tactical Channel
С	6	C3 RPT	P25 Digital	149.8500	140.4125	\$293	\$293	2.5 KHz	3	TXNG Tactical Repeater Channel**
С	7	C4	P25 Digital	168.3500	168.3500	\$293	\$293	2.5 KHz	3	TXNG Tactical Channel
С	8	C4 RPT	P25 Digital	168.3500	163.1000	\$293	\$293	2.5 KHz	3	TXNG Tactical Repeater Channel**
С	9	C	P25 Digital	150.4750	150.4750	\$293	\$293	2.5 KHz	3	TXNG Tactical Channel
С	10	C5 RPT	P25 Digital	150.4750	143.6625	\$293	\$293	2.5 KHz	3	TXNG Tactical Repeater Channel**
С		C6	P25 Digital	150.1000	150.1000	\$293	\$293	2.5 KHz	3	TXNG Tactical Channel
С	12	C6 RPT	P25 Digital	150.1000	142.2375	\$293	\$293	2.5 KHz	3	TXNG Tactical Repeater Channel**
C	13	C7	P25 Digital	150.0750	150.0750	\$293	\$293	2.5 KHz	3	TXNG Tactical Channel
С	14	C7 RPT	P25 Digital	150.0750	143.6375	\$293	\$293	2.5 KHz	3	TXNG Tactical Repeater Channel**
										**Note: Repeater must be installed and working

		-	-	NATIONAL	GUARD NA	TIONWIDE ST	ATE TO STAT	E SUPPORT (	HANN	ELS
NGB	1	VI	Analog	148.0125	148.0125	156.7	156.7	2.5 KHz	4	NG Nationwide Calling Channel
NGB	2	V2	Analog	142.2875	142.2875	156.7	156.7	2.5 KHz	4	NG Nationwide Tactical Channel
NGB	3	V3	Analog	142.4250	142.4250	156.7	156.7	2.5 KHz		NG Nationwide Convoy Channel
NGB	4	V4	Analog	142.1000	142.1000	CSQ	none	2.5 KHz		NG Nationwide Air-to-Ground Channel
NGB	- 5	V3	Analog	150.6000	143.5000	156.7	156.7	2.5 KHz	4	NG Nationwide Tactical Repeater Channel**
NGB	6	V6	Analog	150.1500	142.8500	156.7	156.7	2.5 KHz		NG Nationwide Tactical Repeater Channel**
NGB	7	V7	Analog	149.2375	142.5875	156.7	156.7	2.5 KHz	4	NG Nationwide Tactical Repeater Channel**
NGB	8	V8	Analog	149.0125	142.5500	156.7	156.7	2.5 KHz		NG Nationwide Tactical Repeater Channel**
NGB	9	V9	Analog	149.1500	142.1250	156.7	156.7	2.5 KHz	4	NG Nationwide Tactical Repeater Channel**



Texas Military Department Emergency Communications Camp Mabry, Austin, TX 78703

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### Pre-Programmed Channels / Frequencies (VHF Hi)



#### VHF Hi Frequencies with Channels (cont.)

Zone	_									
	Ch	Ch Name	Mode	Rev	Trans Freq		Trans		Notes	
				Freq		CTCSS/NAC	CTCSS/NAC	Deviation		
	•									
					TEVAS	10000000000000000	1041010104000	ANNELS		
	<u>.</u>	1000 410 100	Analas	154 0500						Mahila ta Mahila Callina Channal
тх	1	TXCALLID	Analog	154.9500	154.9500	156.7	156.7	2.5 KHz	, ,	Mobile-to-Mobile Calling Channel
тх	2	TXCALL2D	Analog	155.3700	155.3700	156.7	156.7	2.5 KHz	5	PRJ: Calling Channel for State/Federal Aircraft
										to/from Base
										SEC: VCALL10 backup
тх	1	VMED28	Analog	155.3400	155.3400	CSQ	156.7	2.5 KHz	5	Tactical Channel (and Air-to-Ground Use)
TX	2	VMED29	Analog	155.3475	155.3475	CSO	156.7	2.5 KHz		Tactical Channel
TX	-	VLAW31	Analog	155.4750	155.4750		136.7	2.5 KHz	÷	Tactical Channel
	3		~			CSQ			,	
тх	4	VLAW32	Analog	155.4825	155.4825	CSQ	156.7	2.5 KHz	5	Tactical Channel
ГX	5	VFIRE21	Analog	154.2800	154.2800	CSQ	156.7	2.5 KHz	5	Tactical Channel
тх	6	VFIRE22	Analog	154.2650	154.2650	CSQ	156.7	2.5 KHz	5	Tactical Channel
гх	7	VFIRE23	Analog	154.2950	154.2950	CSQ	156.7	2.5 KHz	5	Tactical Channel
TX	8	VFIRE24	Analog	154.2725	154.2725	CSQ	156.7	2.5 KHz	5	Tactical Channel
TX	0	VFIRE25	Analog	154.2875	154.2875	CSO	156.7	2.5 KHz	5	Tactical Channel
	-								-	
TX	10	VFIRE26	Analog	154.3025	154.3025	CSQ	156.7	2.5 KHz	5	Tactical Channel (for Air-to-Ground State/ Fede
										Aircraft ONLY)
										•
						TEXAS FOR	EST SERVICE			
TFS	8	COMPACT	Analog	159.2850	159.2850	CSO	127.3	2.5KHz	۲	Texas Forest Service - Travel
110	-	COMPACT	- manug	235.2030	277.2070	yes	121.2	2.76112	1	- waar 2 views Gervine - 11dver
						TEROPERABL	LITY CHANNE		NCIES)	
JS	1	VCALL10	Analog	155.7525	155.7525	CSQ	156.7	2.5 KHz	4	Nationwide Calling Channel
US	2	VTAC11	Analog	151.1375	151.1375	CSO	156.7	2.5 KHz	4	Nationwide Tactical Channel
US	3	VTAC12	Analog	154.4525	154.4525	CSQ	156.7	2.5 KHz	4	Nationwide Tactical Channel
	-		~		158,7375	· · · · · ·			-	
JS	4	VTAC13	Analog	158.7375		CSQ	156.7	2.5 KHz	4	Nationwide Tactical Channel
JS	5	VTAC14	Analog	159.4725	159.4725	CSQ	156.7	2.5 KHz	4	Nationwide Tactical Channel
JS	6	VTAC 17	Analog	161.8500	157.2500	CSQ	156.7	2.5 KHZ	4	Nationwide Tactical Repeater
US	7	VTAC 17D	Analog	161.8500	161.8500	CSO	156.7	2.5 KHZ	4	Nationwide Direct
US	8	VTAC33	Analog	159.4725	151.1375	CSQ	136.5	2.5 KHz	4	Nationwide Tactical Repeater** Secondary 1
	1×	VTAC34	Analog	158.7375	154.4525	CSQ	136.5	2.5 KHz	4	Nationwide Tactical Repeater** Secondary 2
JS	9		~						-	
US	10	VTAC35	Analog	159.4725	158.7375	CSQ	136.5	2.5 KHz	4	Nationwide Tactical Repeater ** Secondary 3
US	[11	VTAC36	Analog	151.1375	159.4725	CSQ	136.5	2.5 KHz	4	Nationwide Tactical Repeater ** Preferred 1
US	12	VTAC37	Analog	154.4525	158.7375	CSQ	136.5	2.5 KHz	4	Nationwide Tactical Repeater** Preferred 2
US	13	VTAC38	Analog	158.7375	159.4725	CSQ	136.5	2.5 KHz	4	Nationwide Tactical Repeater** Preferred 3
										**Note: Repeater must be installed and working
										the second man of manage and we have
	FEDERAL INCIDENT RESPONSE INTEROPERABILITY CHANNELS (ALL FEDERAL AGENCIES)									
			FEDERA						5	Incident Calling Channel (Repeater)**
R	1	NC1	FEDERA	169.5375	164.7125	CSQ	167.9	2.5 KHz	-	
	1 2	NC1 IR1	_		164.7125 165.2500	CSQ CSQ	167.9 167.9	2.5 KHz 2.5 KHz	ŝ	Incident Command 1 (Repeater)**
R		IR1	Analog Analog	169.5375 170.0125	165.2500	CSQ	167.9	2.5 KHz	5	Incident Command 1 (Repeater)**
R R	3	IR1 IR2	Analog Analog Analog	169.5375 170.0125 170.4125	165.2500 165.9625	CSQ CSQ	167.9 167.9	2.5 KHz 2.5 KHz	-	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)**
R R R		IR1 IR2 IR3	Analog Analog Analog Analog	169.5375 170.0125 170.4125 170.6875	165.2500 165.9625 166.5750	CSQ CSQ CSQ	167.9 167.9 167.9	2.5 KHz 2.5 KHz 2.5 KHz	5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)**
IR IR IR IR IR	3 4 5	IR1 IR2 IR3 IR4	Analog Analog Analog Analog Analog	169.5375 170.0125 170.4125 170.6875 173.0375	165.2500 165.9625 166.5750 167.3250	CSQ CSQ CSQ CSQ	167.9 167.9 167.9 167.9	2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz	5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)**
IR IR IR	3	IR1 IR2 IR3	Analog Analog Analog Analog	169.5375 170.0125 170.4125 170.6875	165.2500 165.9625 166.5750	CSQ CSQ CSQ	167.9 167.9 167.9	2.5 KHz 2.5 KHz 2.5 KHz	5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)**
R R R R R	3 4 5	IR1 IR2 IR3 IR4	Analog Analog Analog Analog Analog	169.5375 170.0125 170.4125 170.6875 173.0375	165.2500 165.9625 166.5750 167.3250	CSQ CSQ CSQ CSQ	167.9 167.9 167.9 167.9	2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz	5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)**
R R R R R R	3 4 5	IR.1 IR.2 IR.3 IR.4 IR.5 IR.6	Analog Analog Analog Analog Analog Analog Analog	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125	8888 8888 8888 8888 8888 8888 8888 8888 8888	167.9 167.9 167.9 167.9 167.9 167.9	2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz	5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct)
	3 4 5	IR.1 IR.2 IR.3 IR.4 IR.5 IR.6 IR.7	Analog Analog Analog Analog Analog Analog Analog Analog Analog	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.0125	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125	8888 8888 8888 8888 888 888 888 888 88	167.9 167.9 167.9 167.9 167.9 167.9 167.9	2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct)
	3 4 5 6 7 8 9	IR.1 IR.2 IR.3 IR.4 IR.5 IR.6 IR.7 IR.8	Analog Analog Analog Analog Analog Analog Analog	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.4125 170.6875	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.6875	89 89 89 89 89 89 80 80 80 80 80 80 80 80 80 80 80 80 80	167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9	2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz	5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct)
	3 4 5	IR.1 IR.2 IR.3 IR.4 IR.5 IR.6 IR.7	Analog Analog Analog Analog Analog Analog Analog Analog Analog	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.0125	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125	8888 8888 8888 8888 888 888 888 888 88	167.9 167.9 167.9 167.9 167.9 167.9 167.9	2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct)
	3 4 5 6 7 8 9	IR.1 IR.2 IR.3 IR.4 IR.5 IR.6 IR.7 IR.8	Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.4125 170.6875	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.6875	89 89 89 89 89 89 80 80 80 80 80 80 80 80 80 80 80 80 80	167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9	2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct)
	3 4 5 6 7 8 9	IR.1 IR.2 IR.3 IR.4 IR.5 IR.6 IR.7 IR.8	Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.4125 170.6875	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.6875	89 89 89 89 89 89 80 80 80 80 80 80 80 80 80 80 80 80 80	167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9	2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct)
R R R R R R R	3 4 5 6 7 8 9	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR5 IR9	Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.6875 173.0375	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.4125 173.0375	22 22 22 22 22 22 22 22 22 22 22 22 22	167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9	2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Intragency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working
R R R R R R R	3 4 5 6 7 8 9	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR5 IR9	Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.6875 173.0375	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.4125 173.0375	22 22 22 22 22 22 22 22 22 22 22 22 22	167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9	2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Logistics Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working VENFORCEMENT)
R R R R R R R R R	3 4 5 6 7 8 9	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR5 IR9	Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.6875 173.0375	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.4125 173.0375	22 22 22 22 22 22 22 22 22 22 22 22 22	167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9	2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Intragency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working
	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR7 IR8 IR9 IR9 IR9 LE A	Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog FEDERAL LAW Analog	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.6875 173.0375 173.0375	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.6875 173.0375 MENT INTE 167.0875	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9	2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz (ALL FEDER 2.5 KHz	5 5 5 5 5 5 5 5 5 7 5 7 5 7 5 7 5 7 5 7	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working VENFORCEMENT) Calling Channel (Direct)
	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR7 IR8 IR9 IR9 IE A LE A LE 1	Analog Analog Analog Analog Analog Analog Analog Analog Analog FEDERAL LAW Analog Analog	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.6875 173.0375 173.0375 173.0375 167.0875 167.0875	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.6875 173.0375 MENT INTE 167.0875 162.0875	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working V ENFORCEMENT) Calling Channel (Direct) Tactical (Repeater)**
R R R R R R R R R R R R R R R R R R R	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR5 IR6 IR7 IR8 IR9 IR9 IR9 IE A LE A LE 1 LE 2	Analog Analog Analog Analog Analog Analog Analog Analog Analog FEDERAL LAW Analog Analog P25 Digital	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.6875 173.0375 173.0375 167.0875 167.0875 167.0875	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.6875 173.0375 <b>MENT INTE</b> 167.0875 162.0875 162.0875	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 17.9 17.9	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working VENFORCEMENT) Calling Channel (Direct) Tactical (Repeater)**
R R R R R R R R R R R R R R R R R R R	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR7 IR8 IR9 IR9 IE A LE A LE 1	Analog Analog Analog Analog Analog Analog Analog Analog Analog FEDERAL LAW Analog Analog	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.6875 173.0375 173.0375 173.0375 167.0875 167.0875	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.6875 173.0375 MENT INTE 167.0875 162.0875	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working V ENFORCEMENT) Calling Channel (Direct) Tactical (Repeater)**
R R R R R R R R R R R R R R R R R R R	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR8 IR9 IR9 IR9 IR9 IR9 IR2 IR2 IR2 IR2 IR2 IR2 IR2 IR3 IR2 IR2 IR3 IR4 IR4 IR5 IR4 IR5 IR4 IR5 IR4 IR5 IR5 IR4 IR5 IR6 IR7 IR5 IR7 IR7 IR5 IR7 IR7 IR5 IR7 IR7 IR7 IR7 IR7 IR7 IR7 IR7 IR7 IR7	Analog Analog Analog Analog Analog Analog Analog Analog Analog FEDERAL LAW Analog Analog P25 Digital P25 Digital	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.4125 170.4125 170.4125 170.425 173.0375 173.0375 167.0875 167.0875 167.2500 167.7500	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.6875 173.0375 MENT INTE 167.0875 162.0875 162.0875 162.2625 162.8375	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 17.9 17.9	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working V ENFORCEMENT) Calling Channel (Direct) Tactical (Repeater)** Tactical (Repeater)**
	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR8 IR9 IR9 IE A LE 1 LE 2 LE 3 LE 4	Analog Analog Analog Analog Analog Analog Analog Analog Analog FEDERAL LAW Analog P25 Digital P25 Digital	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.0125 170.4125 170.4125 170.4125 170.4125 170.4125 173.0375 173.0375 167.0875 167.0875 167.0875 167.2500 167.7500 168.1125	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.6875 173.0375 MENT INTE 162.0875 162.2625 162.28375 163.2875	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 17.9 17.	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working V ENFORCEMENT) Calling Channel (Direct) Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)**
IR IR IR IR IR IR IR IR IR IR IR IR IR I	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR8 IR9 IR9 LE A LE 1 LE 2 LE 3 LE 4 LE 5	Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog FEDERAL LAW Analog Analog P25 Digital P25 Digital P25 Digital	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.4125 170.4125 170.4125 170.6875 173.0375 167.0875 167.0875 167.0875 167.0875 167.2500 167.7500 168.1125 168.4625	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.6875 173.0375 167.0875 162.0875 162.2625 162.8375 163.2875 163.4250	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 17.9 17	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Courtol (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working VENFORCEMENT) Calling Channel (Direct) Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)**
IR IR IR IR IR IR IR IR IR IR IR IR IR I	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR8 IR9 IR9 IE A LE 1 LE 2 LE 3 LE 4	Analog Analog Analog Analog Analog Analog Analog Analog Analog FEDERAL LAW Analog P25 Digital P25 Digital	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.0125 170.4125 170.4125 170.4125 170.4125 170.4125 173.0375 173.0375 167.0875 167.0875 167.0875 167.2500 167.7500 168.1125	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.6875 173.0375 MENT INTE 162.0875 162.2625 162.28375 163.2875	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 568F 568F 568F	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working V ENFORCEMENT) Calling Channel (Direct) Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)**
IR IR IR IR IR IR IR IR IR IR IR IR IR I	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR8 IR9 IR9 IE4 LE 1 LE 2 LE 3 LE 4 LE 5 LE 6	Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog FEDERAL LAW Analog P25 Digital P25 Digital P25 Digital P25 Digital	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.6875 173.0375 173.0375 173.0375 173.0375 167.0875 167.0875 167.2500 168.1125 168.4625 167.2500	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.4125 170.6875 173.0375 173.0375 162.0875 162.0875 162.2625 163.2875 163.2875 163.2805 163.2500	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 179.9 17	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Courtol (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working VENFORCEMENT) Calling Channel (Direct) Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)**
	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR8 IR9 IR9 IE4 IE1 IE2 IE3 IE4 IE5 IE6 IE7	Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog P25 Digital P25 Digital P25 Digital P25 Digital P25 Digital P25 Digital	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.6875 173.0375 173.0375 173.0375 167.0875 167.0875 167.0875 167.2500 168.1125 168.4625 167.2500 167.7500	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.6875 173.0375 173.0375 162.0875 162.2625 162.2625 163.2875 163.2875 163.4250 167.2500 167.7500	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 17.9 17	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working V ENFORCEMENT) Calling Channel (Direct) Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Direct Channel on LE2 Repeater Output Direct Channel on LE3 Repeater Output
	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR8 IR9 IR9 IE4 IE1 IE2 IE3 IE4 IE5 IE6 IE6 IE7 IE8	Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog P25 Digital P25 Digital P25 Digital P25 Digital P25 Digital P25 Digital	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.4125 170.4125 170.4125 170.6875 173.0375 173.0375 167.0875 167.0875 167.0875 167.2500 168.1125 168.4625 167.2500 168.1125	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.6875 173.0375 173.0375 162.0875 162.0875 162.0875 162.2625 163.4250 163.4250 167.2500 167.7500 168.1125	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 17.9 17.9 17.9 17.9 17.9 17.9 17.9 17.9 17.9 17.9 17.9 17.9 17.9 1	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working V ENFORCEMENT) Calling Channel (Direct) Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Direct Channel on LE2 Repeater Output Direct Channel on LE3 Repeater Output
R R R R R R R R R R R R R R R R R R R	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR8 IR9 IR9 IE4 IE1 IE2 IE3 IE4 IE5 IE6 IE7	Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog P25 Digital P25 Digital P25 Digital P25 Digital P25 Digital P25 Digital	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.6875 173.0375 173.0375 173.0375 167.0875 167.0875 167.0875 167.2500 168.1125 168.4625 167.2500 167.7500	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.6875 173.0375 173.0375 162.0875 162.2625 162.2625 163.2875 163.2875 163.4250 167.2500 167.7500	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 17.9 17	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working V ENFORCEMENT) Calling Channel (Direct) Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Direct Channel on LE2 Repeater Output Direct Channel on LE3 Repeater Output
R R R R R R R R R	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR5 IR9	Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog FEDERAL LAW	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.6875 173.0375	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.6875 173.0375	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Logistics Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working VENFORCEMENT)
	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR7 IR8 IR9 IR9 IR9 LE A	Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog FEDERAL LAW Analog	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.6875 173.0375 173.0375	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.6875 173.0375 MENT INTE 167.0875	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9	2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz 2.5 KHz (ALL FEDER 2.5 KHz	5 5 5 5 5 5 5 5 5 7 5 7 5 7 5 7 5 7 5 7	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working VENFORCEMENT) Calling Channel (Direct)
R R R R R R R R R R R R R R R	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR7 IR8 IR9 IR9 IE A LE A LE 1	Analog Analog Analog Analog Analog Analog Analog Analog Analog FEDERAL LAW Analog Analog	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.6875 173.0375 173.0375 173.0375 167.0875 167.0875	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.6875 173.0375 MENT INTE 167.0875 162.0875	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 17.9 17.9	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working V ENFORCEMENT) Calling Channel (Direct) Tactical (Repeater)**
	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR5 IR6 IR7 IR8 IR9 IR9 IR9 IE A LE A LE 1 LE 2	Analog Analog Analog Analog Analog Analog Analog Analog Analog FEDERAL LAW Analog Analog P25 Digital	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.6875 173.0375 173.0375 167.0875 167.0875 167.0875	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.6875 173.0375 <b>MENT INTE</b> 167.0875 162.0875 162.0875	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 17.9 17.9	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working V ENFORCEMENT) Calling Channel (Direct) Tactical (Repeater)** Tactical (Repeater)**
R R R R R R R R R R R R R R	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR8 IR9 IR9 IR9 IR9 IR9 IR2 IR2 IR2 IR2 IR2 IR2 IR2 IR3 IR2 IR2 IR3 IR4 IR4 IR5 IR4 IR5 IR4 IR5 IR4 IR5 IR5 IR4 IR5 IR6 IR7 IR5 IR7 IR7 IR5 IR7 IR7 IR5 IR7 IR7 IR7 IR7 IR7 IR7 IR7 IR7 IR7 IR7	Analog Analog Analog Analog Analog Analog Analog Analog Analog FEDERAL LAW Analog Analog P25 Digital P25 Digital	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.4125 170.4125 170.4125 170.425 173.0375 173.0375 167.0875 167.0875 167.2500 167.7500	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.6875 173.0375 MENT INTE 167.0875 162.0875 162.0875 162.2625 162.8375	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working V ENFORCEMENT) Calling Channel (Direct) Tactical (Repeater)** Tactical (Repeater)**
R R R R R R R R R R R R R R R R R R R	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR8 IR9 IR9 IE A LE 1 LE 2 LE 3 LE 4	Analog Analog Analog Analog Analog Analog Analog Analog Analog FEDERAL LAW Analog P25 Digital P25 Digital	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.0125 170.4125 170.4125 170.4125 170.4125 170.4125 173.0375 173.0375 167.0875 167.0875 167.0875 167.2500 167.7500 168.1125	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.6875 173.0375 MENT INTE 162.0875 162.2625 162.28375 163.2875	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 167.9 568F 568F 568F	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working V ENFORCEMENT) Colling Channel (Direct) Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)**
R R R R R R R R R R R R R R R R R R R	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR8 IR9 IR9 LE A LE 1 LE 2 LE 3 LE 4 LE 5	Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog FEDERAL LAW Analog Analog P25 Digital P25 Digital P25 Digital	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.4125 170.4125 170.4125 170.4125 170.6875 173.0375 167.0875 167.0875 167.0875 167.0875 167.2500 167.7500 168.1125 168.4625	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.6875 173.0375 167.0875 162.0875 162.2625 162.8375 163.2875 163.4250	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 17.9 17.9 17.9 17.9 17.9 17.9 17.9 17.9 17.9 17.9 17.9 17.9 17.9 17.9 17.9 17.9 17.9	2.5 KHz 2.5	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working V ENFORCEMENT) Calling Channel (Direct) Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)**
R R R R R R R R R R R R R R R R R R R	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR8 IR9 IR9 IE4 LE 1 LE 2 LE 3 LE 4 LE 5 LE 6	Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog FEDERAL LAW Analog P25 Digital P25 Digital P25 Digital P25 Digital	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.6875 173.0375 173.0375 173.0375 173.0375 167.0875 167.0875 167.2500 168.1125 168.4625 167.2500	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.4125 170.6875 173.0375 173.0375 162.0875 162.0875 162.2625 163.2875 163.2875 163.2805 163.2500	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 179.9 17	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working V ENFORCEMENT) Calling Channel (Direct) Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)**
R R R R R R R R R R R R R R R R R R R	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR8 IR9 IR9 IE4 LE 1 LE 2 LE 3 LE 4 LE 5 LE 6	Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog FEDERAL LAW Analog P25 Digital P25 Digital P25 Digital P25 Digital	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.6875 173.0375 173.0375 173.0375 173.0375 167.0875 167.0875 167.2500 168.1125 168.4625 167.2500	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.4125 170.6875 173.0375 173.0375 162.0875 162.0875 162.2625 163.2875 163.2875 163.2805 163.2500	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 179.9 17	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working V ENFORCEMENT) Calling Channel (Direct) Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Direct Channel on LE2 Repeater Output Direct Channel on LE3 Repeater Output
R R R R R R R R R R R R R R R R R R R	3 4 5 6 7 8 9 10	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR8 IR9 IR9 IE4 IE1 IE2 IE3 IE4 IE5 IE6 IE7	Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog P25 Digital P25 Digital P25 Digital P25 Digital P25 Digital P25 Digital	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.6875 173.0375 173.0375 173.0375 167.0875 167.0875 167.0875 167.2500 168.1125 168.4625 167.2500 167.7500	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.4125 170.6875 173.0375 173.0375 162.0875 162.2625 162.2625 163.2875 163.2875 163.4250 167.2500 167.7500	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 17.9 17	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working V ENFORCEMENT) Calling Channel (Direct) Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Direct Channel on LE2 Repeater Output Direct Channel on LE3 Repeater Output
R R R R R R R R R R R R R R R R R R R	3 4 5 6 7 8 9 10 10 1 2 3 4 4 5 6 7 8 9 9	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR8 IR9 IR9 IE4 IE1 IE2 IE3 IE4 IE5 IE6 IE6 IE7 IE8	Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog P25 Digital P25 Digital P25 Digital P25 Digital P25 Digital P25 Digital	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.4125 170.4125 170.4125 170.6875 173.0375 173.0375 167.0875 167.0875 167.0875 167.2500 168.1125 168.4625 167.2500 168.1125	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.6875 173.0375 173.0375 162.0875 162.0875 162.0875 162.2625 163.4250 163.4250 167.2500 167.7500 168.1125	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 17.9 17.9	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working V ENFORCEMENT) Calling Channel (Direct) Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Direct Channel on LE2 Repeater Output Direct Channel on LE3 Repeater Output
R R R R R R R R R R R R R R R R R R R	3 4 5 6 7 8 9 10 10 1 2 3 4 4 5 6 7 8 9 9	IR1 IR2 IR3 IR4 IR5 IR6 IR7 IR8 IR9 IR9 IE4 IE1 IE2 IE3 IE4 IE5 IE6 IE6 IE7 IE8	Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog Analog P25 Digital P25 Digital P25 Digital P25 Digital P25 Digital P25 Digital	169.5375 170.0125 170.4125 170.6875 173.0375 169.5375 170.0125 170.4125 170.4125 170.4125 170.4125 170.6875 173.0375 173.0375 167.0875 167.0875 167.0875 167.2500 168.1125 168.4625 167.2500 168.1125	165.2500 165.9625 166.5750 167.3250 169.5375 170.0125 170.6875 173.0375 173.0375 162.0875 162.0875 162.0875 162.2625 163.4250 163.4250 167.2500 167.7500 168.1125	CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ CSQ	167.9 17.9 17.9	2.5 KHz 2.5 KHz	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Incident Command 1 (Repeater)** Medical Evacuation Control (Repeater)** Logistics Control (Repeater)** Interagency Convoy (Repeater)** Incident Calling (Direct) Incident Command 1 (Direct) Medical Evacuation Control (Direct) Logistics Control (Direct) Interagency Convoy (Direct) **Note: Repeater must be installed and working V ENFORCEMENT) Calling Channel (Direct) Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Tactical (Repeater)** Direct Channel on LE2 Repeater Output Direct Channel on LE3 Repeater Output





### Pre-Programmed Channels / Frequencies (UHF)



#### **UHF Frequencies with Channels**

Use of all Frequencies in this channel plan are controlled by the J6. The use of these frequencies requires J6 authorization in writing.

			ZO	NE A	
Ch	Ch Name	Mobile Receive Freq	Mobile Transmit Freq	CTCSS/NAC	Purpose/Use
1	A1	397.4250	397.4250	156.7 (5A) TX & RX	General use common channel (analog)-Calling Channel
2	A2	397.4750	397.4750	156.7 (5A) TX & RX	General use common channel (analog)
3	A3	397.5500	397.5500	156.7 (5A) TX & RX	General use common channel (analog)-Convoy
4	A4	397.9500	397.9500	CSQ	General use common channel (analog)-Air to Ground
5	A5	398.0500	398.0500	NAC \$668	General use common channel (digital)
6	A6	399.4250	399.4250	NAC \$668	General use common channel (digital)
7	A7	399.4750	399.4750	NAC \$668	General use common channel (digital)
8	A8	399.7250	399.7250	NAC \$668	General use common channel (digital)
9	A9	388.0125	388.0125	NAC \$668	General use common channel (digital)
10	A10	398.0125	398.0125	NAC \$668	General use common channel (digital)
11	A11	396.0250	396.0250	NAC \$668	General use common channel (digital)
12	A12	396.1750	386.1750	NAC \$668	Repeater (Alternate JISCC Repeater Channel 4)
13	A13	396.2375	386.2375	NAC \$668	Repeater (Alternate JISCC Repeater Channel 3)
14	A14	396.3250	386.3250	NAC \$668	Repeater (Standard JISCC Repeater Channel 1)
15	A15	396.3875	386.3875		Repeater (Alternate JISCC Repeater Channel 2)
16	A16	396.4750	386.4750	NAC \$668	Repeater (Alternate JISCC Repeater Channel 5)

			Z	ONE B	
Ch	Ch Name	Mobile Receive Freq	Mobile Transmit Freq	CTCSS/NAC	Purpose/Use
1	B1	399.9250	389.9250	NAC \$668	HRF C2 REPEATER
2	B2	396.8750	396.8750	NAC \$668	HRF O&I
3	B3	397.1250	397.1250	NAC \$668	HRF A&L
4	B4	397.1750	397.1750	NAC \$668	CBRNE TF C2 / CERFP CRFP C2
5	B5	397.3750	397.3750	NAC \$668	MED
6	86	386.0875	386.0875	NAC \$668	DECON
7	B7	396.9250	386.9250	NAC \$668	S&E REPEATER
8	B8	396.0875	396.0875	NAC \$668	FRST
9	B9	386.5375	386.5375	NAC \$668	SECEL
10	B10	396.5375	396.5375	NAC \$668	SECEL
11	B11	385.1875	385.1875	NAC \$668	SECEL
12	B12	395.1875	395.1875	NAC \$668	COMMO
13	B13	396.6250	386.6250	NAC \$668	SPARE REPEATER
14	B14	396.3250	386.3250	NAC \$668	SPARE REPEATER (Standard JISCC Repeater Channel 1)
15	B15	386.8375	386.8375	156.7 (5A) TX & RX	
16	B16	396.8375	396.8375	156.7 (5A) TX & RX	SPARE

			Z	ONE C	
Ch	Ch Name	Mobile Receive Freq	Mobile Transmit Freq		Purpose/Use
1	UCALL40	453.2125	458.2125	156.7 TX & RX	Interoperability Calling Channel - Repeater
2	UCALL40D	453.2125	453.2125	156.7 TX & RX	Interoperability Calling Channel - Direct
3	UTAC41	453.4625	458.4625	156.7 TX & RX	Tactical Interoperability Repeater
4	UTAC41D	453.4625	453.4625	156.7 TX & RX	Tactical Interoperability Direct Channel
5	UTAC42	453.7125	458.7125	156.7 TX & RX	Tactical Interoperability Repeater
6	UTAC42D	453.7125	453.7125	156.7 TX & RX	Tactical Interoperability Direct Channel
7	UTAC43	453.8625	458.8625	156.7 TX & RX	Tactical Interoperability Repeater
8	UTAC43D	453.8625	453.8625	156.7 TX & RX	Tactical Interoperability Direct Channel
9	NC2 Calling	419.2375	410.2375	167.9 TX only	Fed InterAgency Channel - Repeater
10	IR10	419.4375	410.4375	167.9 TX only	Fed InterAgency Channel - Repeater
11	IR11	419.6375	410.6375	167.9 TX only	Fed InterAgency Channel - Repeater
12	IR12	419.8375	410.8375	167.9 TX only	Fed InterAgency Channel - Repeater
13	IR13	413.1875	413.1875	167.9 TX only	Fed InterAgency Channel - Direct
14	IR14	413.2125	413.2125	167.9 TX only	Fed InterAgency Channel - Direct
15	IR15	410.2375	410.2375	167.9 TX only	Fed InterAgency Channel - Direct
16	FRS CH 1 Code1	462.5625	462.5625	67.0 TX & RX	FRS Interoperability





### Pre-Programmed Channels / Frequencies (700 / 800 MHz)



#### 700/800MHz Frequencies with Channels

Use of all Frequencies in this channel plan are controlled by the J6. The use of these frequencies requires J6 authorization in writing. TXNG owns no channels in these radios. All channels are on FCC frequencies assigned to Texas public safety agencies. TXNG utilizes these frequencies via MOU with the State of Texas. Zone 10 is ONLY available by official request to TXWARN.

ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8	ZONE 9	ZONE 10
LCRA	TXWARN	TXWARN	TXWARN	TXWARN	MRGDC	MRGDC	MRGDC	GATRRS	STDC
LC	75	76	5 77	78	3 M4 OP	M3 PS	M2 MED	TX DPS	TX STX
1 LC_SAC - INOP	TXWARN 1	TXWRNDIS	GCI 1	PUB HLTH	MRG OP1	MRG PS1	MRG IFD1	DPS LESD1	TX STX 01
2 LC_SA_1 - INOP	TXWARN 2	TXWRNTAC	GCI 2	CMOC 1	MRG OP2	MRG PS2	MRG IFD2	DPS LESD2	TX STX 02
3 LC_SA_2 - INOP	TXWARN 3	HC MA 1	GCI 3	CMOC 2	MRG OP3	MRG PS3	MRG IFD3_	DPS LESD3	TX STX 03
4 BEX_LAW - INOP	TXWARN 4	HC MA 2	GCI 4	CMOC 3	MRG OP4	MRG PS4	MRG IFD4	DPS LESD4	TX STX 04
5 BEXFIRE - INOP	TXWARN 5	HC MA 3	GCI 5	CMOC 4	MRG OP5	MRG PS	MRG IFD5	DPS LESD5	TX STX 05
6 PUB_CM1 - INOP	TXWARN 6	HC MA 4	GCI 6	CMOC 5	MRG OP6	MRG PS6	MRG MED1	blank	TX STX 06
7 PUB_CM2 - INOP	TXWARN 7	HC MA 5	GCI 7	CMOC 6	MRG OP7	MRG PS67	MRG MED2	blank	TX STX 07
8 FIRECM1- INOP	TXWARN 8	HC MA 6	GCI 8	CIMA 1	MRG OP8	MRG PS68	MRG MED3	blank	TX STX 08
9 FIRECM2 - INOP	TXWARN 9	HC MA 7	GCI 9	CIMA 2	MRG OP9	MRG PS69	MRG MED4	blank	TX STX 09
0 FIRECM3 – INOP	TXWARN 10	HC MA 8	GCI 10	CIMA 3	MRG OP10	MRG PS610	MRG MED5	blank	TX STX 10
1 LC_CM_1	TXWARN 11	HC MA 9	GCI 11	CIMA 4	blank	blank	blank	blank	TX STX 11
2 LC_CM_2	TXWARN 12	HC MA 10	GCI 12	CIMA 5	blank	blank	blank	blank	TX STX 12
3 LC_CM_3	TXWARN 13	HC MA 11	GCI 13	blank	blank	blank	blank	blank	TX STX 13
4 LC_CM_4 - INOP	TXWARN 14	HC MA 12	GCI 14	blank	blank	blank	blank	blank	TX STX 14
5 LC_CM_5 - INOP	TXWARN 15	HC MA 13	GCI 15	blank	blank	blank	blank	blank	TX STX 15
6 BEX_COM - IMOP	TXAIROP	HC MA 14	GCI 16	blank	blank	blank	blank	blank	blank
70NE 11									
				GATRRS				19	20
OATHIO					7001/0	7001/0	7001/0	7001/0	8001/0
TX GCI			GATRRS						800 I/O 800 I
	TX AUS	G1R OP	F1 R PW	E1 R PS	7CALL50	7CALL70	7LAW	7MED/FD	8CALL
GCI AUS01	TX AUS AUS 01	G1 R OP R OP 01	F1 R PW R PW 01	E1 R PS R PS 01	7CALL50 7CALL50	7CALL70 7CALL70	7LAW 7LAW61	7MED/FD 7MED65	8CALL 8CALL90
GCI AUSO1 GCI AUSO2	TX AUS AUS 01 AUS 02	G1 R OP R OP 01 R OP 02	F1 R PW R PW 01 R PW 02	E1 R PS R PS 01 R PS 02	7CALL50 7CALL50 7CALL50D	7CALL70 7CALL70 7CALL70	7LAW 7LAW61 7LAW61D	7MED/FD 7MED65 7MED65D	8CALL 8CALL90 8TAC91
GCI AUSO1 GCI AUSO2 GCI AUSO3	TX AUS AUS 01 AUS 02 AUS 03	G1 R OP R OP 01 R OP 02 R OP 03	F1 R PW R PW 01 R PW 02 R PW 03	E1 R PS R PS 01 R PS 02 R PS 03	7CALL50 7CALL50 7CALL50D 7TAC51	7CALL70 7CALL70 7CALL70D 7TAC71	7LAW 7LAW61 7LAW61D 7LAW62	7MED/FD 7MED65 7MED65D 7MED66	8CALL 8CALL90 8TAC91 8TAC92
GCI AUS01 GCI AUS02 GCI AUS03 GCI AUS04	TX AUS AUS 01 AUS 02 AUS 03 AUS 04	G1 R OP R OP 01 R OP 02 R OP 03 R OP 04	F1 R PW R PW 01 R PW 02 R PW 03 R PW 04	E1 R PS R PS 01 R PS 02 R PS 03 R PS 04	7CALL50 7CALL50 7CALL50D 7TAC51 7TAC51D	7CALL70 7CALL70 7CALL70D 7TAC71 7TAC71D	7LAW 7LAW61 7LAW61D 7LAW62 7LAW62D	7MED/FD 7MED65 7MED65D 7MED66 7MED66D	8CALL 8CALL90 8TAC91 8TAC92 8TAC93
GCI AUSO1 GCI AUSO2 GCI AUSO3 GCI AUSO4 GCI AUSO5	TX AUS AUS 01 AUS 02 AUS 03 AUS 04 AUS 05	G1 R OP R OP 01 R OP 02 R OP 03 R OP 04 R OP 05	F1 R PW R PW 01 R PW 02 R PW 03 R PW 04 R PW 05	E1 R PS R PS 01 R PS 02 R PS 03 R PS 04 R PS 05	7CALL50 7CALL50 7CALL50D 7TAC51 7TAC51D 7TAC52	7CALL70 7CALL70 7CALL70D 7TAC71 7TAC71D 7TAC72	7LAW 7LAW61 7LAW61D 7LAW62 7LAW62D 7LAW81	7MED/FD 7MED65 7MED65D 7MED66 7MED66D 7MED86	8CALL 8CALL90 8TAC91 8TAC92 8TAC93 8TAC94
GCI AUSO1 GCI AUSO2 GCI AUSO3 GCI AUSO4 GCI AUSO5 GCI AUSO5 GCI AUSO6	TX AUS AUS 01 AUS 02 AUS 03 AUS 04 AUS 05 AUS 06	G1 R OP R OP 01 R OP 02 R OP 03 R OP 04 R OP 05 R OP 06	F1 R PW R PW 01 R PW 02 R PW 03 R PW 04 R PW 05 R PW 06	E1 R PS R PS 01 R PS 02 R PS 03 R PS 04 R PS 05 R PS 06	7CALL50 7CALL50 7CALL50D 7TAC51 7TAC51D 7TAC52 7TAC52D	7CALL70 7CALL70D 7CALL70D 7TAC71 7TAC71D 7TAC72 7TAC72D	7LAW 7LAW61 7LAW61D 7LAW62D 7LAW62D 7LAW81 7LAW81D	7MED/FD 7MED65 7MED65D 7MED66 7MED66D 7MED86 7MED86D	8CALL 8CALL90 8TAC91 8TAC92 8TAC93 8TAC94 8CALL90D
GCI AUSO1 GCI AUSO2 GCI AUSO3 GCI AUSO4 GCI AUSO5 GCI AUSO5 GCI AUSO7	TX AUS AUS 01 AUS 02 AUS 03 AUS 04 AUS 05 AUS 06 AUS 07	G1 R OP R OP 01 R OP 02 R OP 03 R OP 04 R OP 05 R OP 06 R OP 07	F1 R PW R PW 01 R PW 02 R PW 03 R PW 04 R PW 05 R PW 06 R PW 07	E1 R PS R PS 01 R PS 02 R PS 03 R PS 04 R PS 05 R PS 06 R PS 07	7CALL50 7CALL50 7CALL50D 7TAC51 7TAC51D 7TAC52 7TAC52D 7TAC53	7CALL70 7CALL70 7CALL70D 7TAC71 7TAC71D 7TAC72 7TAC72D 7TAC73	7LAW 7LAW61 7LAW61D 7LAW62 7LAW62 7LAW62D 7LAW81 7LAW81D 7LAW82	7MED/FD 7MED/FD 7MED655 7MED650 7MED660 7MED860 7MED860 7MED87	8CALL 8CALL90 8TAC91 8TAC92 8TAC93 8TAC94 8CALL90D 8TAC91D
GCI AUSO1 GCI AUSO2 GCI AUSO3 GCI AUSO4 GCI AUSO5 GCI AUSO5 GCI AUSO7 GCI AUSO7 GCI AUSO8	TX AUS AUS 01 AUS 02 AUS 03 AUS 04 AUS 05 AUS 06 AUS 07 AUS 08	G1 R OP R OP 01 R OP 02 R OP 03 R OP 04 R OP 05 R OP 06 R OP 07 R OP 08	F1 R PW R PW 01 R PW 02 R PW 03 R PW 04 R PW 05 R PW 06 R PW 07 R PW 08	E1 R PS R PS 01 R PS 02 R PS 03 R PS 04 R PS 05 R PS 06 R PS 07 R PS 08	7CALL50 7CALL50 7CALL50D 7TAC51 7TAC51D 7TAC52 7TAC52D 7TAC53 7TAC53D	7CALL70 7CALL70 7CALL70D 7TAC71 7TAC71D 7TAC72 7TAC72D 7TAC73 7TAC73D	7LAW 7LAW61 7LAW61D 7LAW62 7LAW62 7LAW82 7LAW81D 7LAW82 7LAW82	7MED/FD 7MED/FD 7MED655 7MED65D 7MED660 7MED660 7MED860 7MED870 7MED87D	8CALL 8CALL90 8TAC91 8TAC92 8TAC93 8TAC94 8CALL90D 8TAC91D 8TAC92D
GCI AUSO1 GCI AUSO2 GCI AUSO3 GCI AUSO4 GCI AUSO5 GCI AUSO6 GCI AUSO7 GCI AUSO7 GCI AUSO8 GCI AUSO9	TX AUS AUS 01 AUS 02 AUS 03 AUS 04 AUS 05 AUS 06 AUS 07 AUS 08 AUS 09	G1 R OP R OP 01 R OP 02 R OP 03 R OP 04 R OP 05 R OP 06 R OP 07 R OP 08 R OP 09	F1 R PW R PW 01 R PW 02 R PW 03 R PW 04 R PW 05 R PW 06 R PW 07 R PW 08 blank	E1 R PS R PS 01 R PS 02 R PS 03 R PS 04 R PS 05 R PS 06 R PS 07 R PS 08 R PS 09	7CALL50 7CALL50 7CALL50D 7TAC51 7TAC51D 7TAC52 7TAC52D 7TAC53 7TAC53D 7TAC54	7CALL70 7CALL70 7CALL70D 7TAC71 7TAC71D 7TAC72 7TAC72D 7TAC73 7TAC73D 7TAC74	7LAW 7LAW61 7LAW61D 7LAW62D 7LAW62D 7LAW81 7LAW81D 7LAW82 7LAW82D 7MO859	7MED/FD 7MED/FD 7MED655 7MED65D 7MED66D 7MED86D 7MED870 7MED87D 7HED83	8CALL 8CALL90 8TAC91 8TAC92 8TAC93 8TAC94 8CALL90D 8TAC91D 8TAC92D 8TAC93D
GCI AUSO1 GCI AUSO2 GCI AUSO3 GCI AUSO4 GCI AUSO5 GCI AUSO6 GCI AUSO7 GCI AUSO8 GCI AUSO9 GCI AUSO9 GCI AUS10	TX AUS AUS 01 AUS 02 AUS 03 AUS 04 AUS 05 AUS 06 AUS 07 AUS 08 AUS 09 AUS 10	G1 R OP R OP 01 R OP 02 R OP 03 R OP 04 R OP 05 R OP 06 R OP 07 R OP 08 R OP 09 R OP 10	F1 R PW R PW 01 R PW 02 R PW 03 R PW 04 R PW 05 R PW 06 R PW 07 R PW 08 blank blank	E1 R PS R PS 01 R PS 02 R PS 03 R PS 04 R PS 05 R PS 06 R PS 07 R PS 08 R PS 09 R PS 10	TCALL50       TCALL50       TCALL50D       TAC51       TTAC51D       TTAC52D       TTAC53       TTAC53D       TTAC54       TTAC54D	7CALL70 7CALL70 7CALL70D 7TAC71 7TAC71D 7TAC72 7TAC72D 7TAC73 7TAC73D 7TAC74 7TAC74D	7LAW 7LAW61 7LAW61D 7LAW62D 7LAW62D 7LAW81 7LAW81D 7LAW82 7LAW82D 7MO859 7MO859D	7MED/FD 7MED/FD 7MED655 7MED65D 7MED66D 7MED86D 7MED87D 7MED87D 7FIRE63 7FIRE63D	8CALL 8CALL90 8TAC91 8TAC92 8TAC93 8TAC94 8CALL90D 8TAC91D 8TAC91D 8TAC92D 8TAC93D 8TAC93D
GCI AUS01 GCI AUS02 GCI AUS03 GCI AUS04 GCI AUS05 GCI AUS06 GCI AUS07 GCI AUS07 GCI AUS08 GCI AUS09 GCI AUS10 GCI AUS11	TX AUS AUS 01 AUS 02 AUS 03 AUS 04 AUS 05 AUS 06 AUS 07 AUS 08 AUS 09 AUS 10 AUS 11	G1 R OP R OP 01 R OP 02 R OP 03 R OP 04 R OP 05 R OP 06 R OP 07 R OP 08 R OP 09 R OP 10 R OP 11	F1 R PW R PW 01 R PW 02 R PW 03 R PW 04 R PW 05 R PW 06 R PW 07 R PW 08 blank blank blank	E1 R PS R PS 01 R PS 02 R PS 03 R PS 04 R PS 05 R PS 06 R PS 07 R PS 08 R PS 09 R PS 10 R PS 11	TCALL50       TCALL50       TCALL50D       TAC51       TTAC51D       TTAC52D       TTAC53       TTAC54D       TTAC54       TTAC54D       TTAC54D       TTAC55	7CALL70 7CALL70 7CALL70D 7TAC71 7TAC71D 7TAC72 7TAC72D 7TAC73 7TAC73D 7TAC74 7TAC74D 7TAC75	7LAW 7LAW61 7LAW61D 7LAW62D 7LAW62D 7LAW81D 7LAW81D 7LAW82D 7LAW82D 7MO859 7MO859D 7MO879	7MED/FD 7MED/FD 7MED655 7MED650 7MED660 7MED860 7MED870 7MED870 7FIRE63 7FIRE63 7FIRE64	8CALL 8CALL90 8TAC91 8TAC92 8TAC93 8TAC94 8CALL90D 8TAC91D 8TAC91D 8TAC92D 8TAC93D 8TAC93D 8TAC94D 8TAC95D
GCI AUSO1 GCI AUSO2 GCI AUSO3 GCI AUSO4 GCI AUSO5 GCI AUSO5 GCI AUSO7 GCI AUSO7 GCI AUSO9 GCI AUSO9 GCI AUS10 GCI AUS11 GCI AUS12	TX AUS AUS 01 AUS 02 AUS 03 AUS 04 AUS 05 AUS 06 AUS 07 AUS 08 AUS 09 AUS 10 AUS 11 AUS 12	G1 R OP R OP 01 R OP 02 R OP 03 R OP 04 R OP 05 R OP 06 R OP 07 R OP 08 R OP 09 R OP 10 R OP 11 R OP 12	F1 R PW R PW 01 R PW 02 R PW 03 R PW 04 R PW 05 R PW 06 R PW 07 R PW 08 blank blank blank blank blank	E1 R PS R PS 01 R PS 02 R PS 03 R PS 04 R PS 05 R PS 06 R PS 07 R PS 08 R PS 09 R PS 10 R PS 11 R PS 12	TACALLSO       TACALLSO       TALSD       TACS1D       TTACS1D       TTACS2D       TTACS3D       TTACS4D       TTACS4D       TTACS4D       TTACS5D       TTACS5D	TCALL70       TCALL70       TCALL70D       TTAC71       TTAC71D       TTAC72D       TTAC73D       TTAC73D       TTAC74D       TTAC74D       TTAC75       TTAC75D	7LAW       7LAW61       7LAW61D       7LAW62D       7LAW62D       7LAW81D       7LAW82D       7LAW82D       7M0859       7M0879       7M0879D	7MED/FD 7MED/FD 7MED655 7MED65D 7MED66D 7MED86D 7MED87D 7MED87D 7FIRE63 7FIRE63 7FIRE64D	8CALL 8CALL90 8TAC91 8TAC92 8TAC93 8TAC94 8CALL90D 8TAC91D 8TAC91D 8TAC92D 8TAC93D 8TAC93D 8TAC94D 8TAC95D 8TAC95D
GCI AUS01         GCI AUS02         GCI AUS03         GCI AUS04         GCI AUS05         GCI AUS05         GCI AUS06         GCI AUS07         GCI AUS08         GCI AUS09         GCI AUS09         GCI AUS10         GCI AUS11         GCI AUS12         GCI AUS13	TX AUS AUS 01 AUS 02 AUS 03 AUS 04 AUS 05 AUS 06 AUS 07 AUS 08 AUS 09 AUS 10 AUS 10 AUS 11 AUS 12 AUS 13	G1 R OP R OP 01 R OP 02 R OP 03 R OP 04 R OP 05 R OP 06 R OP 07 R OP 08 R OP 09 R OP 10 R OP 11 R OP 12 R OP 13	F1 R PW R PW 01 R PW 02 R PW 03 R PW 04 R PW 05 R PW 06 R PW 07 R PW 08 blank blank blank blank blank blank	E1 R PS R PS 01 R PS 02 R PS 03 R PS 04 R PS 05 R PS 06 R PS 07 R PS 08 R PS 09 R PS 10 R PS 11 R PS 12 R PS 13	TACALLSO       TCALLSO       TALSD       TACS1       TTACS1D       TTACS2D       TTACS3D       TTACS4D       TTACS4D       TTACS4D       TTACS5D       TTACS5D       TTACS5D       TTACS5D       TTACS5D       TTACS5D	TCALL70       TCALL70       TCALL70D       TLAC71       TLAC71D       TLAC71D       TLAC72D       TLAC73D       TLAC73D       TLAC74D       TLAC75       TLAC75D       TLAC75D       TLAC76	7LAW       7LAW61       7LAW61D       7LAW62D       7LAW62D       7LAW81D       7LAW82D       7LAW82D       7M0859       7M0879       7M0879D       blank	7MED/FD 7MED/FD 7MED65 7MED65 7MED66 7MED86 7MED86 7MED87 7MED87 7MED87 7FIRE63 7FIRE63 7FIRE64 7FIRE64 7FIRE64 7FIRE64	8CALL 8CALL90 8TAC91 8TAC92 8TAC93 8TAC94 8CALL90D 8TAC91D 8TAC91D 8TAC92D 8TAC93D 8TAC93D 8TAC95D 8TAC95D 8TAC95D 8TAC95D
GCI AUSO1 GCI AUSO2 GCI AUSO3 GCI AUSO4 GCI AUSO5 GCI AUSO5 GCI AUSO7 GCI AUSO7 GCI AUSO9 GCI AUS10 GCI AUS11 GCI AUS12 GCI AUS13 GCI AUS13 GCI AUS14	TX AUS AUS 01 AUS 02 AUS 03 AUS 04 AUS 05 AUS 06 AUS 07 AUS 08 AUS 07 AUS 09 AUS 10 AUS 11 AUS 12 AUS 13 AUS 14	G1 R OP R OP 01 R OP 02 R OP 03 R OP 04 R OP 05 R OP 06 R OP 06 R OP 08 R OP 08 R OP 09 R OP 10 R OP 11 R OP 12 R OP 13 R OP 14	F1 R PW R PW 01 R PW 02 R PW 03 R PW 04 R PW 05 R PW 06 R PW 07 R PW 07 Blank blank blank blank blank blank blank	E1 R PS R PS 01 R PS 02 R PS 03 R PS 04 R PS 05 R PS 06 R PS 07 R PS 08 R PS 09 R PS 10 R PS 11 R PS 12 R PS 13 R PS 14	7CALL50       7CALL50       7CALL50D       7TAC51       7TAC51D       7TAC52D       7TAC53       7TAC54D       7TAC54D       7TAC54D       7TAC55D       7TAC55D       7TAC55D       7TAC55D       7TAC55D       7TAC55D       7TAC56	TACALL70       TCALL70       TCALL70D       TTAC71       TTAC71D       TTAC72D       TTAC73       TTAC73       TTAC74       TTAC74       TTAC75       TTAC75D       TTAC75D       TTAC76       TTAC76D	7LAW       7LAW61       7LAW61D       7LAW62D       7LAW82D       7LAW82D       7MO859D       7MO879       7MO879D       blank	7MED/FD 7MED/FD 7MED65D 7MED66D 7MED66D 7MED86D 7MED87D 7MED87D 7FIRE63D 7FIRE63D 7FIRE64D 7FIRE64 7FIRE83	8CALL 8CALL90 8TAC91 8TAC92 8TAC93 8TAC94 8CAL90D 8TAC91D 8TAC91D 8TAC92D 8TAC92D 8TAC94D 8TAC94D 8TAC94D 8TAC95D 8TAC95D 8TAC95D 8TAC97D blank
GCI AUS01         GCI AUS02         GCI AUS03         GCI AUS04         GCI AUS05         GCI AUS05         GCI AUS06         GCI AUS07         GCI AUS08         GCI AUS09         GCI AUS10         GCI AUS12         GCI AUS13         GCI AUS14         GCI AUS15	TX AUS AUS 01 AUS 02 AUS 03 AUS 04 AUS 05 AUS 06 AUS 07 AUS 08 AUS 10 AUS 10 AUS 11 AUS 12 AUS 13 AUS 14 AUS 15	G1 R OP R OP 01 R OP 02 R OP 03 R OP 04 R OP 05 R OP 06 R OP 07 R OP 08 R OP 09 R OP 10 R OP 11 R OP 12 R OP 13 R OP 14 R OP 15	F1 R PW R PW 01 R PW 02 R PW 03 R PW 04 R PW 05 R PW 06 R PW 07 R PW 08 blank blank blank blank blank blank	E1 R PS R PS 01 R PS 02 R PS 03 R PS 04 R PS 05 R PS 06 R PS 07 R PS 08 R PS 09 R PS 10 R PS 11 R PS 12 R PS 13 R PS 14 R PS 15	7CALL50       7CALL50       7CALL50       7CALL50       7TAC51       7TAC51D       7TAC52D       7TAC53D       7TAC54D       7TAC54D       7TAC55D       7TAC55D       7TAC55D       7TAC55D       7TAC55D       7TAC56       7TAC56       7GTAC57	TAALL70       TCALL70       TCALL70D       TAC71       TTAC71D       TTAC72D       TTAC73D       TTAC74D       TTAC74D       TTAC75D       TTAC75D       TTAC75D       TTAC76       TTAC76D       TGTAC77	7LAW       7LAW61       7LAW61D       7LAW62D       7LAW82D       7LAW82D       7MO859D       7MO879D       7MO879D       6lank       6lank	7MED/FD 7MED/FD 7MED65D 7MED66D 7MED66D 7MED86D 7MED87D 7MED87D 7FIRE63D 7FIRE63D 7FIRE64D 7FIRE64D 7FIRE83 7FIRE83D	8CALL 8CALL90 8TAC91 8TAC92 8TAC93 8TAC94 8CALL90D 8TAC91D 8TAC91D 8TAC92D 8TAC93D 8TAC93D 8TAC95D 8TAC95D 8TAC95D 8TAC95D
	LC LC_SAL - INOP LC_SA_1 - INOP BEX_LAW - INOP BEX_IRE - INOP PUB_CM1 - INOP PUB_CM2 - INOP FIRECM1- INOP FIRECM2 - INOP FIRECM3 - INOP FIRECM3 - INOP CC_CM_1 LC_CM_1 LC_CM_2 LC_CM_3 LC_CM_4 - INOP SIREC_1NOP SIRECM3 - INOP SIRECM3 LC_CM4 - INOP SIRECM3 SIRCCM3	LC         75           LC_SAC - INOP         TXWARN 1           LC_SA_1 - INOP         TXWARN 2           SLC_SA_2 - INOP         TXWARN 3           BEX_LAW - INOP         TXWARN 4           SEXFIRE - INOP         TXWARN 5           PUB_CM1 - INOP         TXWARN 6           PUB_CM2 - INOP         TXWARN 7           SFRECM1-INOP         TXWARN 8           FIRECM2 - INOP         TXWARN 8           FIRECM3 - INOP         TXWARN 10           LC_CM_1         TXWARN 11           LC_CCM_2         TXWARN 11           LC_CM_3         TXWARN 13           LC_CM_4 - INOP         TXWARN 14           SLC_CM_5 - INOP         TXWARN 15           SLC_CM_5 - INOP         TXWARN 15           SLC_CM_1 - IMOP         TXWARN 12           SLC_CM_1 - INOP         TXWARN 12           SLC_CM_3         TXWARN 14           SLC_CM_5 - INOP         TXWARN 15           SEX_COM - IMOP         TXWARN 15	LC         75         76           LC_SAC - INOP         TXWARN 1         TXWRNDIS           LC_SA_1 - INOP         TXWARN 2         TXWRNTAC           LC_SA_2 - INOP         TXWARN 3         HC MA 1           BEX_LAW - INOP         TXWARN 4         HC MA 2           BEX_IAW - INOP         TXWARN 4         HC MA 2           BEX_IAW - INOP         TXWARN 5         HC MA 3           SPUB_CM1 - INOP         TXWARN 6         HC MA 4           PUB_CM2 - INOP         TXWARN 7         HC MA 5           SIRECM1 - INOP         TXWARN 8         HC MA 6           FIRECM2 - INOP         TXWARN 9         HC MA 7           SIRECM1 - INOP         TXWARN 10         HC MA 8           C_CM_2 - INOP         TXWARN 11         HC MA 9           SIRECM1 - INOP         TXWARN 12         HC MA 10           SIRECM2 - INOP         TXWARN 12         HC MA 10           SIRECM3 - INOP         TXWARN 12         HC MA 10           SIRECM_2 - INOP         TXWARN 12         HC MA 11           LC_CM_1         TXWARN 14         HC MA 11           LC_CM_2 - INOP         TXWARN 15         HC MA 13           SIRECM1 - INOP         TXWARN 15         HC MA 13	LC         75         76         777           LC_SAC - INOP         TXWARN 1         TXWRNDIS         GCI 1           LC_SA_1 - INOP         TXWARN 2         TXWRNTAC         GCI 2           LC_SA_2 - INOP         TXWARN 3         HC MA 1         GCI 3           BEX_LAW - INOP         TXWARN 4         HC MA 2         GCI 4           BEXFIRE - INOP         TXWARN 5         HC MA 3         GCI 5           PUB_CM1 - INOP         TXWARN 6         HC MA 4         GCI 6           PUB_CM2 - INOP         TXWARN 7         HC MA 5         GCI 7           SIRECM1 - INOP         TXWARN 8         HC MA 6         GCI 8           PUB_CM2 - INOP         TXWARN 10         HC MA 7         GCI 9           FIRECM2 - INOP         TXWARN 11         HC MA 8         GCI 10           FIRECM3 - INOP         TXWARN 12         HC MA 10         GCI 11           FIRECM3 - INOP         TXWARN 11         HC MA 10         GCI 12           FIRECM3 - INOP         TXWARN 11         HC MA 10         GCI 12           FIRECM3 - INOP         TXWARN 12         HC MA 10         GCI 12           FIRECM3 - INOP         TXWARN 13         HC MA 11         GCI 13           FIC_CM_1         TXW	LC         75         76         77         78           LC_SAC-INOP         TXWARN 1         TXWRNDIS         GCI 1         PUB HLTH           LC_SA_1-INOP         TXWARN 2         TXWRNTAC         GCI 2         CMOC 1           LC_SA_2-INOP         TXWARN 3         HC MA 1         GCI 3         CMOC 2           BEX_LAW - INOP         TXWARN 4         HC MA 2         GCI 4         CMOC 3           BEX_LAW - INOP         TXWARN 5         HC MA 3         GCI 5         CMOC 4           BEXFIRE - INOP         TXWARN 6         HC MA 4         GCI 6         CMOC 5           PUB_CM1 - INOP         TXWARN 7         HC MA 5         GCI 7         CMOC 6           STRECM1 - INOP         TXWARN 8         HC MA 6         GCI 8         CIMA 1           FIRECM2 - INOP         TXWARN 9         HC MA 7         GCI 9         CIMA 2           FIRECM2 - INOP         TXWARN 10         HC MA 8         GCI 10         CIMA 3           FIRECM3 - INOP         TXWARN 11         HC MA 9         GCI 11         CIMA 4           FIRECM3 - INOP         TXWARN 12         HC MA 10         GCI 12         CIMA 5           FIRECM3 - INOP         TXWARN 13         HC MA 11         GCI 13         bla	LC75767778M4 OPLC_SAC- INOPTXWARN 1TXWRNDISGCI 1PUB HLTHMRG OP1LC_SA_1 - INOPTXWARN 2TXWRNTACGCI 2CMOC 1MRG OP2LC_SA_2 - INOPTXWARN 3HC MA 1GCI 3CMOC 2MRG OP3BEX_LAW - INOPTXWARN 4HC MA 2GCI 4CMOC 3MRG OP4BEX_IAW - INOPTXWARN 5HC MA 3GCI 5CMOC 4MRG OP5DUB_CM1 - INOPTXWARN 6HC MA 4GCI 6CMOC 5MRG OP6PUB_CM2 - INOPTXWARN 7HC MA 5GCI 7CMOC 6MRG OP7STRECM1 - INOPTXWARN 8HC MA 6GCI 8CIMA 1MRG OP8PIB_CM2 - INOPTXWARN 9HC MA 7GCI 9CIMA 2MRG OP9PIRCM3 - INOPTXWARN 10HC MA 8GCI 10CIMA 3MRG OP10PIRCM3 - INOPTXWARN 11HC MA 9GCI 11CIMA 4blankLC_CM_1TXWARN 12HC MA 10GCI 12CIMA 5blankLC_CM_3TXWARN 13HC MA 11GCI 13blankblankLC_CM_4 - INOPTXWARN 15HC MA 13GCI 15blankblankLC_CM_5 - INOPTXWARN 15HC MA 14GCI 15blankblankLC_CM_5 - INOPTXWARN 15HC MA 14GCI 16blankblankLC_CM_5 - INOPTXWARN 15HC MA 14GCI 15blankblankLC_CM_5 - INOPTXWARN 15HC MA 14GCI 15blankblank	LC75767778M4 OPM3 PSLC_SA_C - INOPTXWARN 1TXWRNDISGCI 1PUB HLTHMRG OP1MRG PS1LC_SA_1 - INOPTXWARN 2TXWRNTACGCI 2CMOC 1MRG OP2MRG PS2LC_SA_2 - INOPTXWARN 3HC MA 1GCI 3CMOC 2MRG OP3MRG PS3BEX_LAW - INOPTXWARN 4HC MA 2GCI 4CMOC 3MRG OP4MRG PS4BEX_IAW - INOPTXWARN 5HC MA 3GCI 5CMOC 4MRG OP5MRG PS4BEXFIRE - INOPTXWARN 6HC MA 4GCI 6CMOC 5MRG OP6MRG PS6PUB_CM1 - INOPTXWARN 7HC MA 5GCI 7CMOC 6MRG OP7MRG PS67BEREM1-INOPTXWARN 9HC MA 6GCI 8CIMA 1MRG OP8MRG PS68PUB_CM2 - INOPTXWARN 9HC MA 7GCI 9CIMA 2MRG OP9MRG PS69PIRECM2 - INOPTXWARN 10HC MA 8GCI 10CIMA 2MRG OP10MRG PS610PIRECM3 - INOPTXWARN 11HC MA 10GCI 11CIMA 4blankblankPIRECM3 - INOPTXWARN 12HC MA 11GCI 13blankblankblankPIC_CM_1TXWARN 14HC MA 11GCI 13blankblankblankPIC_CM_2TXWARN 15HC MA 13GCI 15blankblankblankPIC_CM_4 - INOPTXWARN 15HC MA 13GCI 15blankblankblankPIC_CM_4 - INOPTXWARN 15HC MA 13	LCTXWARN 1TXWRNDISGCI 1PUB HLTHMRG OP1MRG PS1MRG IFD1LC_SA_1 - INOPTXWARN 2TXWRNTACGCI 2CMOC 1MRG OP2MRG PS2MRG IFD2LC_SA_2 - INOPTXWARN 3HC MA 1GCI 3CMOC 2MRG OP3MRG PS3MRG IFD3B EX_LAW - INOPTXWARN 4HC MA 2GCI 4CMOC 3MRG OP4MRG PS4MRG IFD4B EX_LAW - INOPTXWARN 5HC MA 3GCI 5CMOC 4MRG OP5MRG PS4MRG IFD5B EX_LAW - INOPTXWARN 6HC MA 4GCI 6CMOC 5MRG OP6MRG PS6MRG MED1PUB_CM2 - INOPTXWARN 7HC MA 5GCI 7CMOC 6MRG OP6MRG PS67MRG MED2PUB_CM2 - INOPTXWARN 8HC MA 5GCI 7CMOC 6MRG OP7MRG PS68MRG MED3PIRECM2 - INOPTXWARN 9HC MA 5GCI 9CIMA 1MRG OP8MRG PS68MRG MED4PIRECM2 - INOPTXWARN 9HC MA 7GCI 9CIMA 2MRG OP10MRG PS610MRG MED5PIRECM3 - INOPTXWARN 11HC MA 9GCI 11CIMA 4blankblankblankblankLC_CM_1TXWARN 13HC MA 11GCI 3blankblankblankblankblankLC_CM_2TXWARN 13HC MA 11GCI 14blankblankblankblankblankLC_CM_4 - INOPTXWARN 14HC MA 12GCI 14blankblankblankblankblankblank	LC76767778M4 OPM3 PSM2 MEDTX DPSLLC_SAC-INOPTXWARN 1TXWRNDISGCI 1PUB HLTHMRG OP1MRG PS1MRG IFD1DPS LESD 1RLC_SA_1-INOPTXWARN 2TXWRNTACGCI 2CMOC 1MRG OP2MRG PS2MRG IFD3DPS LESD 2RLC_SA_2-INOPTXWARN 3HC MA 1GCI 3CMOC 2MRG OP3MRG PS3MRG IFD3DPS LESD 3REX_LAW - INOPTXWARN 4HC MA 2GCI 4CMOC 3MRG OP4MRG PS4MRG IFD4DPS LESD 4REX_LAW - INOPTXWARN 5HC MA 3GCI 5CMOC 4MRG OP5MRG PS6MRG IFD3DPS LESD 4REX_LAW - INOPTXWARN 6HC MA 3GCI 7CMOC 5MRG OP7MRG PS6MRG MED1blankPUB_CM2 - INOPTXWARN 7HC MA 5GCI 7CMOC 6MRG OP7MRG PS68MRG MED3blankPUB_CM2 - INOPTXWARN 8HC MA 6GCI 8CIMA 1MRG OP8MRG PS68MRG MED4blankFIRECM2 - INOPTXWARN 9HC MA 7GCI 9CIMA 2MRG OP10MRG PS610MRG MED3blankFIRECM2 - INOPTXWARN 11HC MA 11GCI 13CIMA 4blankblankblankblankLC_CM_2TXWARN 11HC MA 11GCI 13CIMA 5blankblankblankblankblankLC_CM_3 - INOPTXWARN 13HC MA 11GCI 13blankblankblankblankblankblank





### Where do I find the Signal Operating Instructions?

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Local Authorities will add you to the ICS-205 and provide a copy. Below is an example of the Incident Command System Form 205 (ICS-205). This is the civilian equivalent to the Military's Signal Operating Instructions (SOI) or Communications Card (Commo. Card). This document dictates what Channels/Frequency are being used with specific Agencies during an incident. The Communications Unit Leader (COM-L) of the Incident will dictate the Channels/Frequencies of every responding agency within the Area of Operation, including the Texas Military Department.

**IMPORTANT:** There are significant legal liabilities to TMD should anyone operate outside of the authorized frequencies assigned by the COM-L on this ICS-205 or the frequencies listed on the "Authorized Frequencies for Tactical Radios" page of this field guide.

								_	
INCIDENT RADIO COMMUNICATIONS PLAN (ICS205)		Incident Name:			Date/Time		Operational Period Date/Time		
		LAURA			YYYYMMDD / HHHH		20200826-20200827 0700-0700		
Ch #	Function	Channel Name/Trunked Radio System Talkgroup	Assignment	RX Freq N or W	RX Tone/NAC	TX Freq N or W	Tx Tone/NAC	Mode A, D or M	Remarks
		Cystom rangroup						7., D 0. m	
1	COMMAND	EOC2EOC	HGAC County EOCs	TXWARN 800	N/A	TXWARN 800	N/A	Т	
2	TACTICAL	HC P1	HC Precinct 1	TXWARN 800	N/A	TXWARN 800	N/A	Т	HC Commissioner PCT 1
3	TACTICAL	HC P2	HC Precinct 2	TXWARN 800	N/A	TXWARN 800	N/A	Т	HC Commissioner PCT 2
4	TACTICAL	HC P3	HC Precinct 3	TXWARN 800	N/A	TXWARN 800	N/A	Т	HC Commissioner PCT 3
5	TACTICAL	HC P4	HC Precinct 4	TXWARN 800	N/A	TXWARN 800	N/A	Т	HC Commissioner PCT 4
6	TACTICAL	HCEM 1	HCOHSEM Daily Ops	TXWARN 800	N/A	TXWARN 800	N/A	Т	HCOHSEM
7	TACTICAL	HC FM 1	FM Operations	TXWARN 800	N/A	TXWARN 800	N/A	Т	HCFMO
8	TACTICAL	HC HM-4	HC HAZMAT	TXWARN 800	N/A	TXWARN 800	N/A	Т	HCFMO
9	TACTICAL	HC PHES 1	HC Public Health	TXWARN 800	N/A	TXWARN 800	N/A	Т	HC Public Health
10								_	
	TACTICAL	HC PHES 2	HC Public Health	TXWARN 800	N/A	TXWARN 800	N/A	Т	HCPH specimen collection
11	TACTICAL	HCUS LTE	HCUS MCV	TXWARN 800	N/A	TXWARN 800	N/A	т	HC Universal Services (HCUS) Radio
12									HC Universal Services
	TACTICAL	FIELD INTEROP	HCUS RNOC	TXWARN 800	N/A	TXWARN 800	N/A	Т	(HCUS) Radio
13	TACTICAL	US FIELD OPS	HCUS Radio Field Team	TXWARN 800	N/A	TXWARN 800	N/A	Т	HC Universal Services (HCUS) Radio
14	TACTICAL	TXWARN-TAC	HCUS Water Rescue	TXWARN 800	N/A	TXWARN 800	N/A	т	HC Universal Services Water Rescue Team
15	TACTICAL	TXWARN 1	HCUS RNOC	TXWARN 800	N/A	TXWARN 800	N/A	T	Link to Austin
16	TACTICAL	TXWARN 2	HCUS RNOC	TXWARN 800	N/A	TXWARN 800	N/A	T	Link to Austin
17	TACTICAL	TXWARN 3	HCUS RNOC	TXWARN 800	N/A	TXWARN 800	N/A	Т	Link to Austin
18	TACTICAL	TXWARN 9	TX MIL Department	TXWARN 800	N/A	TXWARN 800	N/A	T	Support
19	TACTICAL	TXWARN 10	TX MIL Department	TXWARN 800	N/A	TXWARN 800	N/A	Т	Support
20	TACTICAL	HC MA 1	All LE Agencies	TXWARN 800	N/A	TXWARN 800	N/A	т	(Dedicated)
21	TACTICAL	HC MA 2	LIFEFLIGHT/Air Rescue	TXWARN 800	N/A	TXWARN 800	N/A	Т	(Dedicated)
22	TACTICAL	HC MA 3	HCUS RNOC	TXWARN 800	N/A	TXWARN 800	N/A	Т	Air Med & LE Backup
23			TXDPS Operations-until 31 Dec		N/A		N/A	т	
	TACTICAL	HC MA 8		TXWARN 800	IN/A	TXWARN 800	IN/A	- 1	D. Stanfield; 979-578-1133
24			COVID-19 (HCPH)						HCSO
	TACTICAL	HC MA 9 (LE USE)	(RR-Inn Shelter)	TXWARN 800	N/A	TXWARN 800	N/A	Т	Sgt. Brawner 281-732-3918
25	TACTICAL	HC MA 10	COVID-19 (HCPH) (Pridgeon Stadium)	TXWARN 800	N/A	TXWARN 800	N/A	т	HC PH, N. Vessey 832-603- 1535
Prepared By (Com	munications Unit)				Incident Location				
First Name Last Name, COM-L			County, T	County, Texas					





### Interoperable LMRs (VHF Lo)



Kenwood TK-6110 34.0 – 40.9 MHz / 32 channels / 8KHz FM, 70 watts / SINCGARS Interoperability / Single Channel / Plain Text / Located inside TICPs



#### Interoperability with:



PRC-148



PRC-152



PRC-150



SINCGARS RT-1523



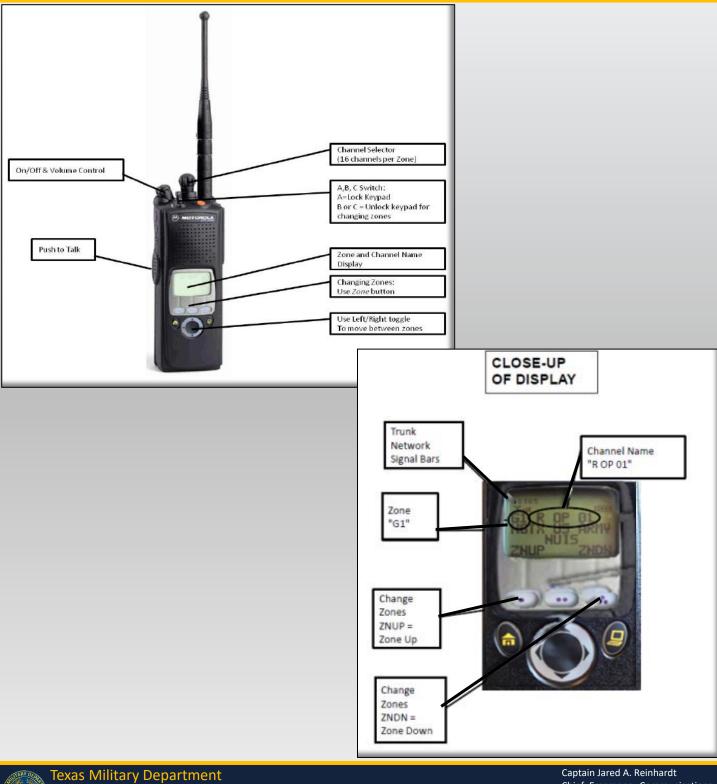
Texas Military Department Emergency Communications Camp Mabry, Austin, TX 78703

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### Interoperable LMRs (VHF Hi)





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Interoperable LMRs (UHF)



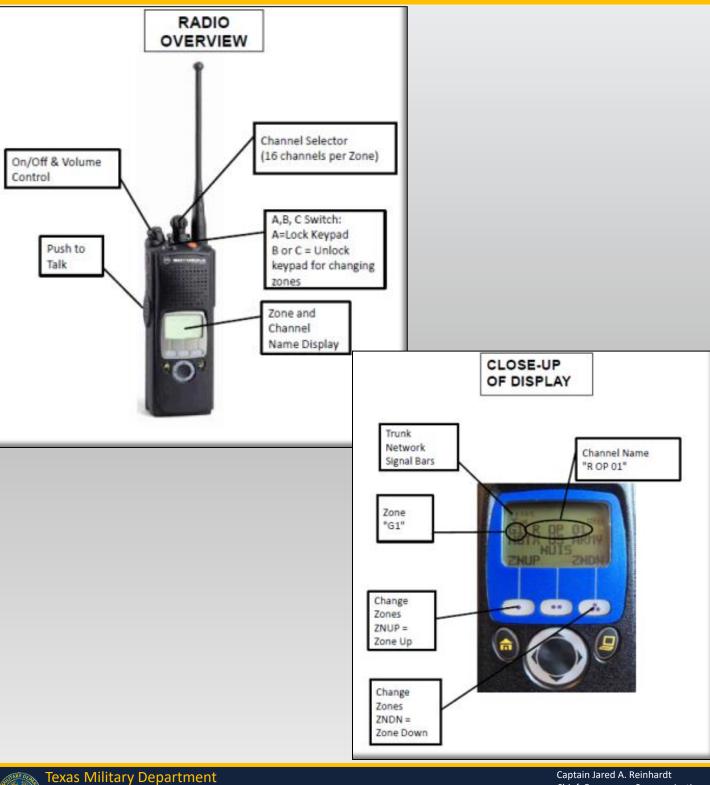


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### Interoperable LMRs (700/800 MHz)



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### Interoperable Harris Radios (Multi-Band)

# THE BOOK CONTINUES

#### Harris Unity Multi-Band Radios VHF / UHF / 800MHz

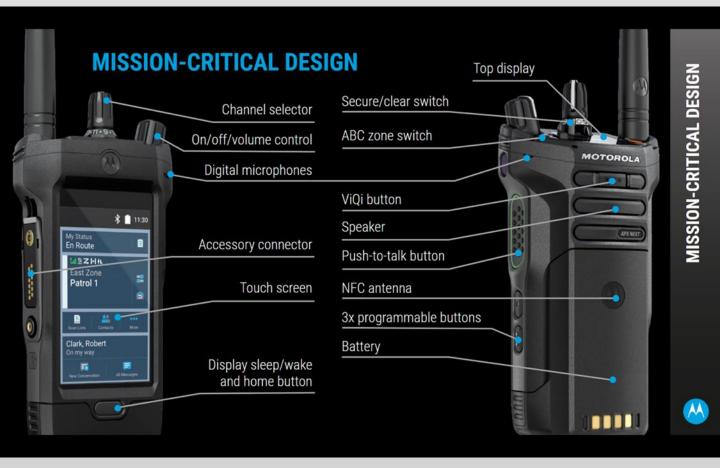






### Interoperable Harris Radios (Multi-Band)

Motorola Multi-Band Smart Radios VHF / UHF / 800MHz / Cellular / ATAK Capable / GPS Tracking







### TAG's Mission Command Trailer (TMCT)



**MISSION:** To provide the Adjutant General of Texas and, if permitted, Joint Task Force/Dual Status Commanders rapid, reliable and interoperable voice, data, and radio network capabilities in austere environments during emergencies throughout the state.

#### **FEATURES**

- Command Post Comm Support
- TMD J6 Provided System
- 9 SIP Phones
- 9 Laptops
- 1 Printer
- 8 work stations
- Internet/WiFi via satellite and 4G
- On-board 12.5 KW Quiet Diesel Generator
- Climate controlled work stations
- 40ft pneumatic antenna mast with LMR antennas
- VHF/UHF/800 Land Mobile Base Radio
- VHF-Low Base Radio InterOp with Army SINCGARS radio
- Radio over IP capability bridging/linking (Network Radio Gateways)
- Roof Mounted Satellite Dish
- NGB Commercial Satellite access (8x3 Mbps)
- Locally designed and built by TMD J6 personnel
- Towable Minimum ¾ Ton Pickup with Class III hitch

\*Option to augment w/ 1 available Sprint Femtocell (1 mi. radius 3G service)

#### **1** Trailer







Texas Military Department Emergency Communications Camp Mabry, Austin, TX 78703

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### Mobile Emergency Operation Center (MEOC)



**MISSION:** To support the Homeland Response Force (HRF) by providing reliable and interoperable voice, data, and radio network capabilities in austere environments during emergencies throughout the state FEMA Region VI.

#### **FEATURES**

- Command Post Comm Support
- NGB Air National Guard Provided System
- 10 VOIP Phones
- 10 Climate Controlled Workstations
- 10 Flat Screen TV Monitors
- 1 HP Color LaserJet Printer
- Internet/WiFi via satellite and 4G
- NIPR Access
- On-board 20 KW Diesel Generator (x2)
- Dell PowerEdge R210 Server
- Two Toshiba DVR's
- Smart Board
- 40ft pneumatic mast with LMR antennas
- Direct TV Satellite Internet Feed
- Harris Tactical Radios
- Raytheon ACU-2000
- 3x Harris Unity Multiband Radios
- PRC-150 & PRC-152
- Radio Over IP Capability (bridging & linking)
- 360 Degree Video Monitoring System
- Orion Weather Station
- Local & Regional Satellite TV Feeds
- Digital Video Recording
- Roof Mounted Satellite Dish
- NGB provided satellite service
- On-board Heat Pump / 50 Gal. Water Tank
- Refrigerator / Coffee Maker / Microwave / Bathroom / 3-5 Day Self Sustaining



Mobile WiFi Hotspot



HP LaserJet Printer



Captain Jared A. Reinhardt

512-406-1935

Chief, Emergency Communications

jared.a.reinhardt.mil@mail.mil



Texas Military Department Emergency Communications Camp Mabry, Austin, TX 78703

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### 1 Trailer



### **Texas Interoperable Communications Package (TICP)**

MISSION: To provide TMD and local authorities rapid, reliable and interoperable voice, data, and radio network capabilities in austere environments during emergencies throughout the state.

#### **FEATURES**

- Command Post Comm Support
- TMD J6 Provided System
- 6 SIP Phones
- 6 Laptops
- I Printer
- 6 work stations
- Internet/WiFi via satellite and 4G
- On-board 12.5 KW Quiet Diesel Generator
- Climate controlled work stations
- 40ft pneumatic antenna mast with LMR antennas
- VHF/UHF/800 Land Mobile Base Radio
- VHF-Low Base Radio InterOp with Army SINCGARS radio
- Radio over IP capability bridging/linking (Network Radio Gateways)
- Roof Mounted Satellite Dish
- NGB Commercial Satellite access (8x3 Mbps)
- Locally designed and built by TMD J6 personnel
- Towable Minimum ¾ Ton Pickup with Class III hitch
- Option to augment w/ 1 available Sprint Femtocell (1 mi. radius 3G service).
- \*Fly Away only has voice & data... no radio

#### **14 TRAILERS / 1 FLY AWAY\***





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Chief, Emergency Communications 512-406-1935 jared.a.reinhardt.mil@mail.mil



### Joint Incident Site Communications Capability (JISCC)



**MISSION:** To support the Homeland Response Force (HRF) by providing reliable and interoperable voice, data, and radio network capabilities in austere environments during emergencies throughout the state FEMA Region VI.

#### **FEATURES**

- Command Post Comm Support
- NGB Provided System
- Block IIe: Public Internet Only
- Dedicated 8x3 Mbps SATCOM
- Block III: DoD NIPRNET
- Dedicated 3x1 Mbps SATCOM
- 15 VOIP Phones (PSTN & DSN)
- 15 Laptops
- Laser and Multifunction Printers
- VTC Suite
- Interoperable Land Mobile Radio (LMR)
- 15 handheld UHF radios with 110 watt Motorola Quantar Repeater
- SINCGARS radio net integration via PRC-152
- Radio over IP capability and bridging (ACU-1000 or 5000)
- On-Board 12.5 KW Quiet Diesel Generator with 36 gallon fuel tank
- Two on-board Air Conditioners
- 4 work stations
- 40ft pneumatic mast with floodlights, Nycoil, 4 LMR400 cables, and high gain LMR base antennas (all bands) and Discone Antennas
- Rooftop LMR mobile Antennas
- Tow: ¾ Ton Pickup with Class III hitch
- Military towing pintle for towing with LMTV,
   FMTV (can not be towed with a HMMWV)

#### **3** Trailers











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### Texas Fly Away Kits (TFAKs)



**MISSION:** To provide TMD and local authorities rapid, reliable and interoperable voice, data, and radio network capabilities in austere environments during emergencies throughout the state for **State Active Duty missions ONLY**.

#### **FEATURES**

- Command Post Comm Support
- TMD J6 Provided System
- Internet via state satellite network
- On-board 12.5 KW Quiet Diesel Generator
- Climate controlled work stations
- 40ft antenna mast with LMR antennas
- VHF/UHF/800 Land Mobile Base Radio
- Radio over IP capability bridging/linking (ACU-1000)
- Dismounted Satellite Dish
- State Commercial Satellite access (512x512 Mbps dedicated and 5X2 Mbps surged)
- Locally designed and built by TMD J6 personnel

Camp Mabry, Austin, TX 78703

 Towable Minimum ¾ Ton Pickup with Class III hitch

\*State owned equipment on TXSG Property book

#### **2 FLY AWAY KITS**





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### Radio Network Expansion Trailer (RNET)



**MISSION:** To extend TMD and local authorities rapid, reliable and interoperable radio network capabilities in austere environments during emergencies throughout the state.

#### **2** Trailers **FEATURES** • Area Radio Net Comm Support Beyond Line of Sight (BLOS) Capable J6 Provided System On-board 12.5 KW Quiet Diesel Generator Climate controlled work stations 40ft pneumatic antenna mast with LMR antennas Roof mounted Satellite Dish Cisco IPICs for Radio over IP (ROIP) • Operates on the State Satellite network (512X512 w/ surge capacity to 5X2) •VHF/UHF/800 Land Mobile Radio VHF-Lo Radio – InterOp with SINCGARS Locally designed and built by J6 personnel ■Towable Minimum ¾ Ton Pickup with Class III hitch Military towing pintle for towing with LMTV, FMTV (can not be towed with a HMMWV) Repeater Configuration Customized for the mission: TXARNG/TXANG/TX

VHF



IF UHF Motorola XTL5000

(50watts)



800 MHz



VHF-Lo Tactical FM InterOp



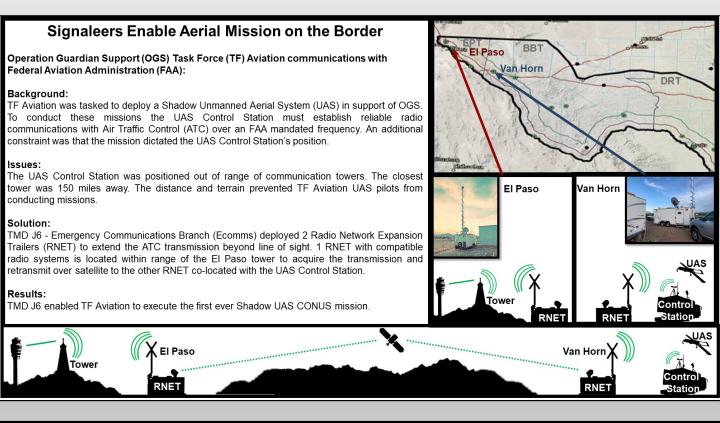
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### What is Radio over IP (RoIP)?





**NOTES:** Radio over IP (RoIP) is the ability to receive a radio transmission via line-of-sight then convert that signal into a digital package to be sent over any mode of Internet Protocol (i.e. satellite, cellular broadband, fiber, etc.). Different trailers have differ RoIP solutions but all of our trailers, aside from the 100' Mobile Repeater Tower, have this capability.





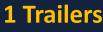
### 100' Mobile Repeater Tower

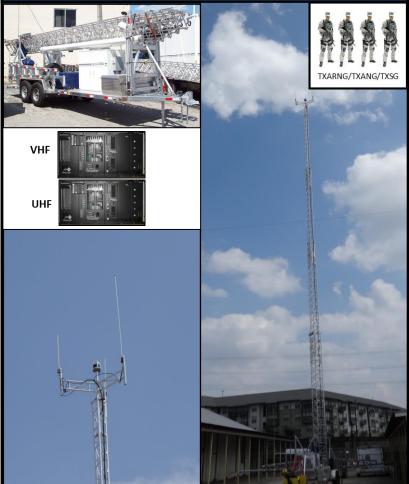
**MISSION:** To extend TMD and local authorities rapid, reliable and interoperable radio network capabilities in austere environments during emergencies throughout the state.

#### **FEATURES**

- Area Radio Net Comm Support
- J6 Provided System
- Provides 20-30 miles of Coverage
- Motorized 100 ft. telescopic tower
- On-board Generator

Towable Minimum ¾ Ton Pickup with Class III hitch











#### DO NOT's :

- Do not take these to the field without permission from J6 Ecomms. Even with permission you must remain on <u>hard top surfaces only.</u>
- •Do not direct the team to use the system for other that the way they were trained.
- Do not kick out the operators or take over their workspace.
- Do not reconfigure the trailer.
- Do not dismount any equipment .
- Do not run the generator without changing the oil every 240 hours of use.
- Do not stream movies.
- Do not change mission without J6 Ecomms approval.

#### DO:

- Seek J6 Ecomms approval before use to support any mission.
- Assure that your users are conserving bandwidth.
- Coordinate with J6 Ecomms for any problems (512) 782-1020.
- Coordinate with J6 Ecomms for any special requirements.
- Practice good network security practices.
- Utilize these systems for mission support <u>AND</u> urgent personal business or family contact that can't wait until the end of mission.





### DSCA Phone Capability (Android Smart Phones)

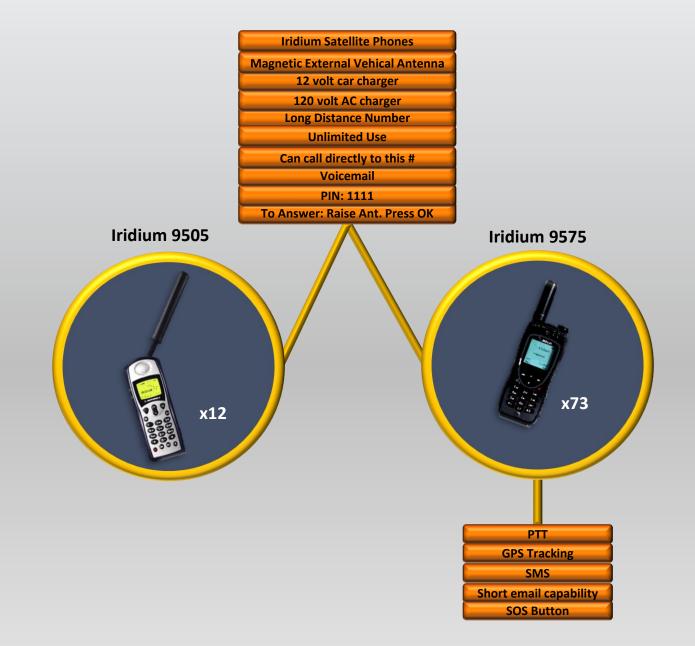






**Satellite Phones** 







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### Beneficial Strategic & Tactical Assets (DODIN Access)



#### **FEATURES**

- DODIN-A(NG)
- RCAS Laptops
- Conference
   Rooms
- BDE HQs
- SVTC
- SIPR
- VOIP Phones
- 50 MBps
  - bandwidth



Name	Satellite Transportable Terminal (STT)
Nomenclature	AN/TSC-167D V1 & V2
Capabilities	(V)1 up to 8mbps FDMA and 5 mbps time division multiple access (TDMA)
	(V)2 up to 5mbps TDMA
Spectrum	Ku-band (Ka upgradeable)
Planning distance	Satellite 🤝
Operational mode	Voice, data



Name	Joint Network Node (JNN	)
Nomenclature	AN/TTC-59	
NSN		
SIPR/NIPR Data	144/144	
SIPR/NIPR VOIP	96/96	
NIPR/SIPR 2 Wire	24 subscribers	7
(UG 224)		_
NIPR/SIPR (VG	48 subscribers	19
248)		a
PBX voice	32	CIIIIII C
Video	IP/serial	4-4
teleconference		
(VTC)		
Other	n/a	

Name	Global Broadcast Servic	es (GBS)
Nomenclature	AN/TSR-8, 9, 10, 11	
Capabilities	Can operate both classified and simultaneously allowing both ty processed, and viewed, in accorr requirements, using the included	pes of data to be received, dance with cybersecurity
Spectrum	X, Ku, Ka-band	
Planning distance	Satellite	
Operational mode	Voice, Data, Video	
operational mode		

BN's

Name	Command Post Node (CP	N)
Nomenclature	OM-87	
Capabilities	Up to 5 mpbs over STT Up to 16 mbps over HCLOS	s
SIPR/NIPR Data	44/44	10
SIPR/NIPR VOIP	44/44	
NIPR/SIPR 2 wire (VG 224)	n/a	
PBX voice	n/a	
VTC	IP only (user provided)	ALC: NO
Other	n/a	ALCON



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Name	Satellite Transportable Terminal (STT)
Nomenclature	AN/TSC-167D V1 & V2
Capabilities	(V)1 up to 8mbps FDMA and 5 mbps time division multiple access (TDMA) (V)2 up to 5mbps TDMA
Spectrum	Ku-band (Ka upgradeable)
Planning distance	Satellite
Operational mode	Voice, data

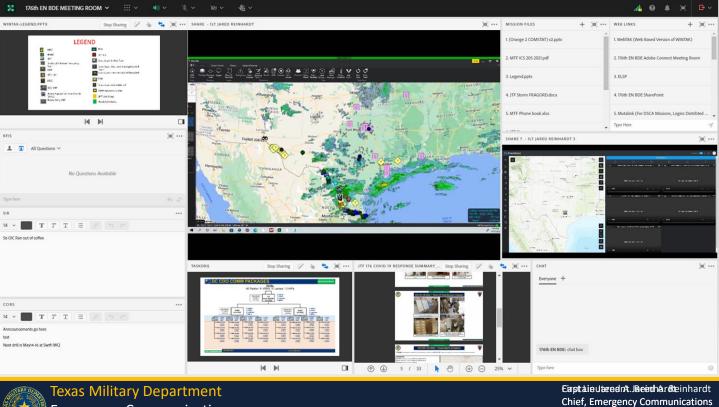


### **Adobe Connect**





The primary purpose of Adobe Connect is to provide Information Awareness capability to the COP. This versatile platform enables the gathering and sharing of multiple information requirements. It aggregates multiple types of information and presents them in a single view (i.e. meeting room). How information is shared on Adobe Connect: Presenting Documents (.ppt, .pdf), Screen Sharing, File Sharing, Chatting, Note Sharing, RFI Tracking, Web Links Sharing, and Video Sharing. There is also the ability to host a conference line that will bridge those using the device's microphone with those dialing in from a phone. Adobe Connect can be access on DoDIN devices (via web browser) and non-DoDIN devices (via web browser or application). **Note:** some features are restricted on DoDIN devices





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# Android Team Awareness Kit

### Windows Team Awareness Kit









#### (Currently, services are only available on non-DoDIN Devices)

The primary purpose of TAK is to provide Spatial Awareness capability to the COP. It allows leaders to monitor missions by applying geospatial fencing, identify areas of interest by placing indicators on the map for planned and unplanned events, use for SIGACT reports, add various advisories to include inclement weather, natural disasters such as floods and landslides.

ATAK enables tracking and receipt of mission critical information from Headquarter (HQ) elements at all echelons during an incident response. End users may also use it to navigate using GPS and monitor geospatial map data with real time situation awareness. This app is preloaded and configured on a cache of Android Smartphones that are distributed to Mission Ready Packages (MRPs) during emergencies. These phones MUST be powered on and have the ATAK software running in the background at all times immediately following receipt of equipment from the JTF J6 / BDE S6. This ensures its geolocation will auto-populate on the state-wide shared map.

WinTAK increases the level of situational awareness for HQ elements at all echelons. It allows HQs to track personnel and activities in the field across the state. WinTAK also significantly decreases the amount of time to disseminate mission critical information. It broadcasts Significant Activities by using symbology and customized symbols. In short, this application is intended to be a civilian version of the Blue Force Tracker (BFT). This program is preloaded and preconfigured on a cache of Public Imaged Laptops that are then distributed to Mission Ready Packages (MRPs) during emergencies. While these systems are Unclassified, the information obtained by using them should only be shared only with persons who have the need to know.





### ATAK / WinTAK Inter-Agency Team Colors





Inter-agency Team assignments:

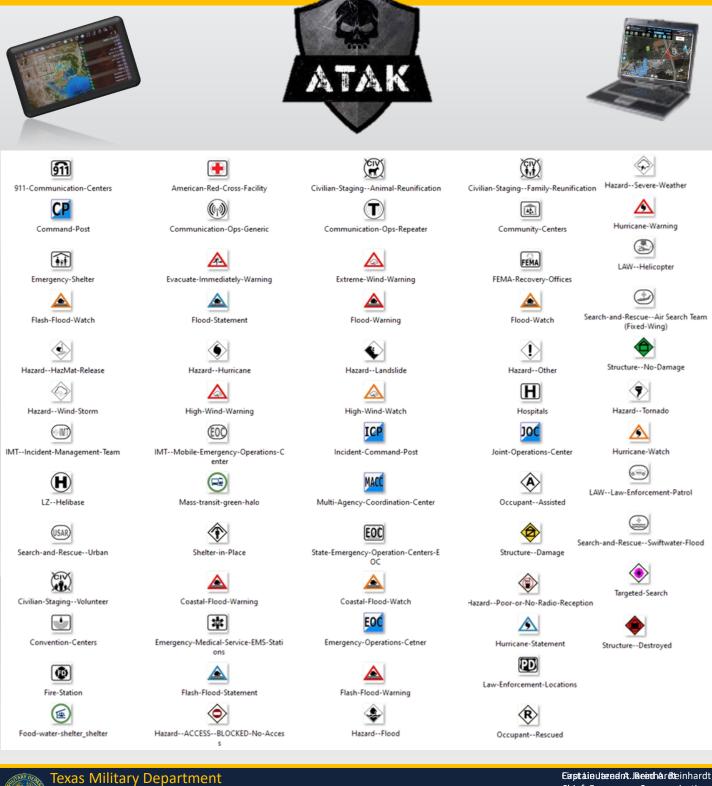
Dark Green: reserved for TMD Green: reserved for non-TMD Military support Yellow: reserved for Emergency Management Dark Blue: reserved for Federal Law Enforcement Agencies Blue: reserved for State Law Enforcement Agencies Cyan: reserved for County Law Enforcement Agencies Teal: reserved for local / municipal Law Enforcement Agencies Brown: reserved for Forest, Parks and Wildfire Agencies Magenta: reserved for HAZMAT Red: reserved for local / municipal Fire Agencies White: reserved for EMS/EMT Agencies Orange: reserved for Search and Rescue Agencies Maroon: left blank on purpose Purple: left blank on purpose

\*For further instructions on how to properly employ ATAK & WinTAK please refer to the *"ATAK / WinTAK Standard Operating Procedures"*.





### ATAK / WinTAK Storm Response Symbology



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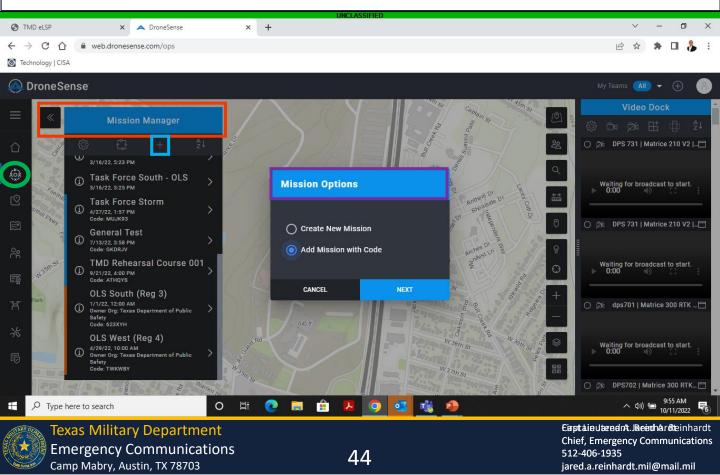


#### (Currently, services are only available on non-DoDIN devices)

The primary purpose of DroneSense is to provide Visual Awareness capability to the COP. DroneSense is an application that allows TMD to view the small Unmanned Aerial Systems' (sUAS) video feeds of partner agencies utilizing the same platform (i.e. TxDPS and TPWD). This is done through the sharing of a 6-digit alpha-numeric "Mission Code" from the originating agency. Once the code is received navigate to the "Operations Hub" then click

the "<u>Mission Manager</u>" and select the + icon. Once the "<u>Mission Options</u>" window appears select "Add Mission with Code" and click next. Enter the 6-digit alpha numeric "Mission Code" and select "Add Mission". This will add the mission to your "Mission Manager" list. To view the video feeds for this mission, scroll down and click the respective mission you would like to view. Select "Drones & Devices". Click on the camera icon To view where the sUAS is located on the map and it's field of view click on the eye icon

The DroneSense smartphone application is primarily used to fly sUAS. However, it can also use the phone as a sensor and share the phones video through the app.

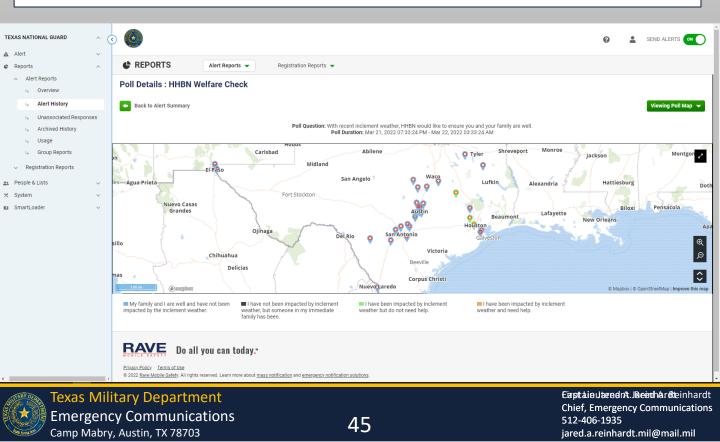








The purpose of RAVE is to provide mass information dissemination capability. This tool automates the leaderships' ability to push out mission critical information to target audiences in a timely manner based on geo-location or defined attributes. Modes of communication include text/SMS messaging, email (plain text and html), phone calls, and agency social media platforms. RAVE also provides the ability to track confirmed delivery of a message. There are two primary types of messages: 1.) <u>Standard</u> <u>Messaging</u> – pushes out information without requiring meaningful feedback; 2.) <u>Polling</u> – desires meaningful feedback from the audience messaged. Data gathered by the Polling feature can be further evaluated by the analytic tools that RAVE provides (Poll Charts, Poll Answers, and Poll Map).





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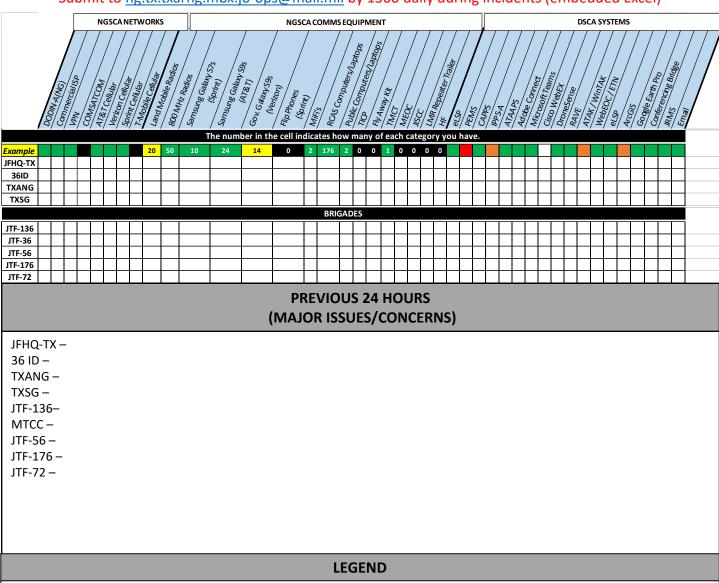
### Communication Status (COMSTAT) Report

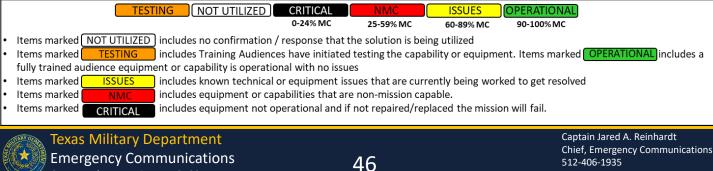


jared.a.reinhardt.mil@mail.mil

### ORANGE 2

Submit to ng.tx.txarng.mbx.j6-ops@mail.mil by 1500 daily during incidents (embedded Excel)







**TEXAS MILITARY DEPARTMENT** Joint Force Headquarters – J6



# **Points of Contact**

#### For any questions feel free to call:

Call J6 Ecomms: (512) 782-1020

Ecomms Branch Chief: Jared Reinhardt (512) 782-1021

Ecomms Deputy Branch Chief: 1LT Sandborn, Nicholas (512) 318-8788

Ecomms Branch NCOIC: SFC Jarvis, Scott (512) 782-1022

Ecomms Telecommunications Specialist: Mr. Erik Matthies (512) 782-1394

Ecomms Systems Administrator: 1LT Carter, Courtney (512) 539-8756

Ecomms Systems Administrator: SSG Castelazo, Giovanni (512) 782-1395

Ecomms Systems Administrator: SSG Cordero, Andres (512) 782-1023

