

# Emergency Telephone System Board Of DuPage County Policy and Procedures



Policy #: 911-005.5  
Previous Policy(s): 4.2  
Effective Date: April 9, 2018  
Revised: August 9, 2023

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## DuPage Emergency Dispatch Interoperable Radio System (DEDIRS) Terminology and Definitions

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### Purpose:

The purpose of this policy is to ensure compliance with State of Illinois STARCOM21 and DEDIRS requirements for use and access of DEDIRS talk groups for the purpose of interoperability for emergency communications by acknowledging industry standards for definitions and terminology.

### Additional Authority:

Public Act 100-002

Act

OEX-003B-89 Amending Section 40-20 of the DuPage County Code Pertaining to the Emergency Telephone System Board

### Goal:

It is the goal of the Emergency Telephone System Board of DuPage County (DuPage ETSB) to provide one seamless method of interoperable communication for use by agencies on DEDIRS for non-member agencies. This policy shall provide acronyms and definitions commonly used in the 9-1-1 profession both in the use of the radio and delivery of emergency services. These lists are not all inclusive.

### Scope:

This policy shall apply to all Public Safety Answering Points (PSAPs) in the DuPage ETSB 9-1-1 System, including all Telecommunicators and other employees of the PSAP, user agencies or DuPage ETSB staff, contracted vendors, or other authorized agents, DEDIRS users and agencies receiving approval to access DEDIRS talk groups.

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## 1. Policy Statement

DuPage ETSB leases a portion of the Motorola Solutions, Inc. STARCOM21 network in Illinois as an integrated component of its emergency dispatch telephone system. The system permits communication between telecommunicators and the first responding personnel they dispatch in response to calls placed to 9-1-1. The system also permits personnel from public safety agencies throughout the County to communicate with each other during emergency joint response situations.

To achieve seamless interoperable communication, standardization of operation and naming conventions are required to ensure first responders can effectively operate subscriber units while on duty but especially during critical, active incidents when speed and accuracy are critical. In conjunction with National Incident Management System protocols, plain language is the preferred method of radio communication.

## 2. Terminology

This section consists of acronyms, terms and definitions applicable for general radio usage and those specific to the DEDIRS network.

### 2.1 Acronyms General Radio Usage

The following acronyms and terms are acceptable for day-to-day radio usage although plain language is the preferred method.

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<u>ACRONYM</u>	<u>MEANING</u>
AC	Assistant Chief
AKA	Also Known As
ALS	Advanced Life Support
BC	Battalion Chief
BLS	Basic Life Support
CAD	Computer Aided Dispatch
CIT	Crisis Intervention Team
COG	Continuity of Government
CONOPS	Continuity of Operations
COOP	Continuity of Operations Plan
CP	Command Post
DC	Deputy Chief
DHS	Department of Homeland Security
DEDIRS	DuPage Emergency Dispatch Interoperable Radio System
DL or DLN	Driver's License / Driver License Number
DOA	Dead on Arrival
DOB	Date of Birth
EAS	Emergency Alert System
ECC	Emergency Communications Center
EMAC	Emergency Management Assistance Compact
EMD	Emergency Medical Dispatch
EMI	Emergency Management Institute
EMS	Emergency Medical Service
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
ERG	Emergency Response Guide
ERT	Emergency Response Team
ETA	Estimated Time of Arrival
FD	Fire Department
FEMA	Federal Emergency Management Agency
FI	Field Interview
FOG	Fields Operations Guide

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FSA	Fire Station Alerting
FTA	Failure to Appear
FTP	Failure to Pay
FY	Fiscal Year
GIS	Geographic Information System
HAZMAT	Hazardous Material
HSAC	Homeland Security Advisory Council
HSPB	Homeland Security Protection Board
HSOC	Homeland Security Operations Center
HSPD-5	Homeland Security Presidential Directive – 5
HSPD-8	Homeland Security Presidential Directive - 8
IAP	Incident Action Plan
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
IFERN	Interagency Fire Emergency Radio Network
IGA	Intergovernmental Agreement
ILEAS	Illinois Law Enforcement Alarm System
IL-TERT	Illinois Telecommunicator Emergency Response Team
IMAT	Incident Management Assistance Team
IMT	Incident Management Team
ISO	Incident Safety Officer
IREACH	Illinois Radio Emergency Assistance Channel
ISPERN	Illinois State Police Emergency Radio Network
JIC	Joint Information Center
JIS	Joint Information System
JOC	Joint Operations Center
LPR	License Plate Reader
MABAS	Mutual Aid Box Alarm System
MDT	Mobile Data Terminal (aka MDC: Mobile Data Computer)
MERCI	Medical Emergency Communications of Illinois
MERIT	Metropolitan Emergency Response Investigation Team of DuPage County
MCI	Mass Casualty or Multi-Casualty Incident
MICN	Mobile Intensive Care Nurse

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MICU	Mobile Intensive Care Unit
MSDS	Material Safety Data Sheets
MVI	Multiple Victim Incident
NAWAS	National Warning System
NCIC	National Crimes Information Center
NDMS	National Disaster Medical System
NEMA	National Emergency Management Association
NGO	Nongovernmental Organization
NIC	NIMS Integration Center
NIMS	National Incident Management System
NIMCAST	National Incident Management Capability Assessment System
NIPAS	Northern Illinois Police Alarm System
NLETS	National Law Enforcement Telecommunications System
NPG	National Preparedness Goal
NRCC	National Response Coordination Center
NRP	National Response Plan
PIO	Public Information Officer
PVO	Private Voluntary Organization
R&D	Research & Development
RACES	Radio Amateur Civil Emergency Service
RIT	Rapid Intervention Team
ROSS	Resource Ordering and Status System
RP	Reporting Person
RRCC	Regional Response Coordination Center
SDO	Standard Development Organizations
SITREP	Situation Report
SO	Safety Officer
SOP	Standard Operating Procedure
SOS	Secretary of State
SSO	Scene Safety Officer
SWAT	Special Weapons & Tactics
TA	Talkaround
TRT	Technical Rescue Team
TCL	Targeted Capabilities List

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UAC	Unified Area Command
UC	Unified Command
USAR	Urban Search And Rescue
UTL	Unable To Locate
WC	Watch Commander
WMD	Weapons Of Mass Destruction

## 2.2 DEDIRS Specific Usage

The following includes acronyms, terms and definitions of commonly used within the DEDIRS Network.

700/800 Megahertz:	A range of UHF radio spectrum used by public safety agencies for voice and data including wideband data channels. DEDIRS utilizes channels between 764-806 MHz.
800 Megahertz:	A range of UHF radio spectrum used by public safety trunked systems operate on channels between 806 and 869 MHz.
Agency:	A participating entity within the member structure of DEDIRS. Agencies include police and fire departments of municipalities as well as fire protection districts. The corporate authorities (e.g. village board, city council, board of fire protection district trustees) of each agency must execute an intergovernmental agreement (IGA) with DuPage County before its personnel may utilize the DEDIRS system.
Alias:	Proper names representing a Unit ID example 270300 (STARCOM21 ID)=ADP 127 (Addison Police Officer 127) or 270100 (STARCOM21 ID)=ADF CHIEF 100 (Addison Fire Chief 100).
Broadcast All Call:	A radio console feature which allows a PSAP to communicate to all system subscribers at one time. Used for major emergencies.
APCO:	Associated Public Safety Communications Officials, Inc.: an international professional organization with members from federal, state, local government, and equipment vendors in all aspects of public safety communications.
ATG:	Announcement talk group DEDIRS channel that is used to make general announcements to more than one agency. Such as DUCALL or Broadcast.
AVL:	Automatic Vehicular Location: A device on a vehicle that interfaces with a radio system to communicate the actual location of a vehicle in a pre-mapped geographic grid back to the dispatch center.
BDA:	Bi-Directional Amplifier: A device used to extend coverage into a building.
"BONK" tone:	A busy tone, similar to a telephone busy signal. This tone is heard when a user attempts to transmit a message on a trunked talk group when all frequencies are in use. The busy tone is heard as long as the PTT button is depressed. The user should release the PTT button and wait for the automatic callback tones.
DEDIRS:	DuPage Emergency Dispatch Interoperable Radio System: A countywide radio system provided by ETSB as an integrated component of the emergency telephone system. DEDIRS employs a 700/800MHz digital P25 trunking system that is part of the statewide STARCOM21 system. STARCOM21 is owned and operated by Motorola Solutions, Inc. (Motorola) and under the governance of the State of Illinois.

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Emergency Call Button:	When pressed, one beep indicates the alarm has been sent. When the alarm is acknowledged by the system, five beeps are heard. The radio will also display an emergency alert on the top display and home screen.
Encryption	Law enforcement specific talk groups and conventional channels operate in the encrypted mode. Digital radios with the encryption option are required to use encrypted talkgroups and channels. If a radio does not contain the correct encryption code, "KEY FAIL", "SECURE ONLY" and/or an error message will appear on the radio display, and communications on that talk group/channel will not be possible. The radio will continue to receive and transmit on all non-encrypted talk groups and conventional channels.
Failsoft Chirp:	A beep every 10 seconds indicates failsoft, a condition that occurs when the trunked cell fails and cannot perform trunking. When this occurs, the radio automatically switches to a predetermined frequency and functions like a conventional repeater channel.
Illegal Function Tone:	A continuous tone heard when the user attempts a function that is not allowed.
Invalid Chirp:	A momentary, lower pitched tone which indicates the user has selected an un-programmed function.
LMR	Land Mobile Radio (traditional hand-held using 2-way transceivers)
Low Battery Chirp:	A high-pitched "chirp-chirp" tone which indicates the portable radio battery needs charging/charging.
LTE	Long Term Evolution (wireless communications on networks)
OTAP	Over the Air Programming OTAP: A process that permits Motorola to program a subscriber unit through an RF interface using the STARCOM21 system network and customer-approved programming templates. OTAP also permits Motorola to remotely "read" the status of a subscriber unit.
Radio Maintainer:	This term shall be used for any contracted technician or agency authorized by ETSB to work on DEDIRS radios.
Radio System Manager:	This term shall be used for a Motorola provided system manager who is authorized by ETSB to manage the DEDIRS fleet of radios and oversee the maintenance and service requests for ETSB owned radios and consoles.
Smart Connect	LTE capability with seamless switch to a FirstNet LTE connection if the STARCOM21 LMR signal is unavailable
Smart Mapping	Home screen map providing precise GPS location information of first responders and relevant information
Smart Messaging	Feature enabling the user to send/receive messages from other system users and from console users where Smart Messaging software is available
Smart Programming	In-field updates to system radio updates and program over wireless broadband. Upon initiating an update, the user is unable to receive/transmit until the update is complete. Users may delay an update which has no impact upon radio usage.
STARCOM21:	An APCO Project-25 Trunked Radio System for voice and data operations for the State of Illinois. Motorola installs, operates, and maintains this system. Other state, county and local users are invited to join the system.
<u>Talkaround</u>	A mode of communication that bypasses, or "talks around" the repeater. This is a short range, radio communications mode.
Talkgroup:	The term given to assigned groups on a trunked radio system. Unlike a conventional radio which assigns users a certain frequency, a trunk system takes a number of frequencies allocated to the system. The control channel then coordinates the system so talkgroups can share these frequencies seamlessly. The purpose is to dramatically



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	increase bandwidth. Many radios today treat talkgroups as if they were frequencies since they behave like such. For example, on a radio scanner it is very common to be able to assign talkgroups into banks or lock them out, exactly like that of conventional frequencies.
Talkgroup Call:	A call involving other users within the originating users own talk group.
Talkgroup ID:	A unique identifier assigned to each talk group in a Motorola trunking system.
Talkgroup Scan:	A feature that allows a subscriber unit to scan those talkgroups that have an affiliated member at the scanning radio's site. The talk group scan list(s) must be programmed in the radio.
Talk Permit Tone:	A series of three short, rapid beeps when the transmit button is pressed. The radio user must wait for the talk permit tones before proceeding with a transmission on a trunked talk group.
Talk Prohibit Tone:	A continuous tone heard when the user presses the transmit button when the radio is either out of range of the trunked radio system or when the system is out of service.
Template Management	<p>DuPage ETSB (or its designee) will be responsible for developing and approving all of the programming templates of the DuPage STARCOM21 radio system. When DuPage ETSB approves the creation or modification of a template, it provides a copy to Motorola's STARCOM21 Manage Services Team for proper inclusion in a master template repository.</p> <p>In order to reduce the possibility of programming errors due to the use of incorrect templates, all templates used for programming via OTAP must be included in this repository so that only version-controlled copies are used. All templates should have a unique name and date field and be easily discerned as to who the customer is based upon the name. Old versions of the templates will be stored in an archive file for emergency use if a customer needs to revert to a previous version of a template. Only the active and last version of the template will be stored. All other previous versions of a template will be deleted.</p>
Time-out Timer Tone:	A momentary tone at 55 seconds indicating the transmission is approaching 60 seconds and will be discontinued at the 60-second point.
Trunking	<p>In the context of radio communications, a trunk is a communications path. In conventional systems, similar to traffic on a one-lane road, one message cannot get to its destination if there is another message using, or blocking, the way forward. This is a problem with large radio system users. When a user is using a channel that is shared among a group of users, the other users must wait until the channel is clear to transmit. Thus, trunking became an efficient solution in large urban areas which have large radio channel needs than available spectrum permits. Trunking has been employed by telephone companies for more than a century. The phone system does not provide a dedicated trunk for each of its thousands of users; rather it employs a complex switching system to share its trunks among subscribers. When a user makes a call, the telephone system assigns a trunk to the user for the duration of that call. After the user hangs up, the same trunk becomes available to other users. Thus, a small number of telephone trunks can be shared by a large number of subscribers. The switching equipment in the telephone company central office manages the sharing efficiently and automatically.</p> <p>Radio trunking techniques are applied for the same fundamental reasons as those used by the telephone companies. The trunking technology allows a large number of users to share a small number of trunks (in this case, frequencies). The effectiveness of trunking is based on two fundamental characteristics. First, the percentage of time that any individual user requires a trunk (frequency) is very small compared to the total time</p>

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	<p>available, and secondly, the probability that many users will require a trunk at the same time is exceedingly small.</p> <p>Each trunked radio system has a number of communications paths, known as talk groups. In a non-technical sense, a talk group is the same as a channel. Within DEDIRS, any reference to a “talk group” indicates a trunked system communications path, while a “channel” indicates a non-trunked or conventional communications path.</p> <p>When a user presses the transmit button, the DEDIRS trunking system controller assigns a frequency to that talk group for the duration of the transmission. Once the transmission is over, the frequency goes back into the pool for reassignment. With eighteen (18) frequencies available, the likelihood of all of them being unavailable at any one time is remote.</p>
Valid Key Chirp:	A momentary, higher-pitched tone, which confirms that the user has selected a valid, programmed button.
ViQi	Voice-Enabled Virtual Assistant: Interactive voice controls allowing a user to operate the radio with pre-programmed common commands to include (but not limited to) changing the channel, zone, volume or requesting battery status.
Volume Set Tone:	A button-enabled tone which alerts a user that he or she has adjusted the volume to a desired level before radio traffic is actually received.
Watch Commander Vehicle	A vehicle that is driven by a street supervisor or command officer who is in charge of a patrol shift.

Policy adopted: \_\_\_\_\_

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Greg Schwarze, Chairman