Effective TTY Call Processing

Refresher Training
for
Communications Officers

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Excel 9-1-1

Training for 911 Professionals

Effective TTY Call Processing

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TABLE OF CONTENTS	PAGE #

Notice:

This training program, although based on the TTY component of the APCO ADA Training Standard for Communications Officers, does not meet the requirements of the entire training standard. For training which meets the complete requirements as established in the APCO ADA Training Standard for Communications Officers, please contact Excel 9-1-1, Inc. to obtain more information on the 8-hour ADA Training for Communications Officers Course.

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Legal Requirements

The Americans with Disabilities (ADA) Act

The Americans with Disabilities Act (ADA), Public Law 101-336, enacted July 26, 1990, is a federal civil rights law that gives civil rights protections to individuals with disabilities similar to those provided to individuals on the basis of race, color, sex, national origin, age, and religion. It guarantees equal opportunity for individuals with disabilities in employment, transportation, state and local government services, telecommunications, and in the goods and services provided by businesses.

Title II of the Americans with Disabilities Act (ADA)

Title II requires that state and local governments give people with disabilities an equal opportunity to benefit from all of their programs, services, and activities (e.g. public education, employment, transportation, recreation, health care, social services, courts, voting, and town meetings). Telephone emergency services, such as 911, are categorized as local/state governmental services and are subject to the provisions of the ADA under Title II.

Department of Justice Standards

The Department of Justice is the federal agency responsible for enforcing Title II of the Americans with Disabilities Act and has several requirements relating to providing telephone emergency services:

- direct and equal access,
- training of communications officers,
- maintenance of equipment, and
- completion of self-evaluations.

Direct and Equal Access

The ADA mandates that public entities provide emergency telephone services to persons with disabilities which are ***direct and equal*** to services provided to others.

> **Direct Access -** Direct access means that Public Safety Answering Points (PSAP's) can directly receive Teletypewriter for the Deaf (TTY) calls without relying on an outside relay service or third-party services.
>
> **Equal Access -** Equal access means that the telephone emergency services provided for TTY users are as effective as those provided for persons who make voice calls, in terms of:
>
> - response time,
> - response quality,
> - hours of operation, and
> - all other features offered (e.g., automatic number identification, automatic location identification, automatic call distribution).

A telephone emergency service which provides access to its services by dialing "911" must allow both voice and non-voice callers to access the service by dialing 911. No special dialing requirements may be placed on persons who use TTY's to access the service. By allowing these calls to come in on 911 lines, the communications officer will be provided automatic number identification (ANI) and/or automatic location identification (ALI), just as they are for voice calls.

Where 911 services are not available and a PSAP provides emergency services via a seven-digit number, it still must provide direct and equal access to TTY callers. It may do so either by having one line for both voice and TTY calls, or it may provide two separate lines – one for voice calls, and another for TTY calls. Requiring TTY callers to call a separate seven-digit number is not allowed in areas where 911 is offered, because having to dial a seven-digit number is not equal to the ease of having to dial the simple, familiar 911.

As with 911, services for TTY calls on seven-digit numbers must be as effective as those offered for voice calls in terms of time of response, hours of operation, and other features. Also, PSAP's must ensure that TTY numbers are publicized as effectively as voice numbers and displayed as prominently as voice numbers wherever telephone emergency numbers are listed.

Training for Communications Officers

PSAP's must train their call takers to effectively recognize incoming TTY signals and process TTY calls effectively by using proper protocol in both English and American Sign Language (ASL) formats.

Call takers must be trained in the use of TTY equipment and supplied with information about communication protocol with individuals who are deaf or hard of hearing, or who have speech impairments. For instance, callers who use American Sign Language use a syntax that is different from spoken English. This will be addressed in more detail later in this class.

Other Interpreted Requirements

The Department of Justice, in recent years, has expressed more specific requirements for compliance with the ADA through technical assistance manuals and settlement agreements with agencies who have received complaints of non-compliance. These requirements mandate that agencies must:

- Install a minimum of one TTY at each console pod or answering point;
- Maintain up-to-date knowledge concerning technological developments;
- Modify policies and procedures to ensure that telephone emergency services for TTY users is "as effective" as those provided to others;
- Establish and maintain a working relationship with individuals who are deaf, hard of hearing, and who have speech impairments and provide them with an opportunity to participate in the self-evaluation process;

- Establish, implement and document testing procedures for conducting routine TTY test calls, including transfers to other agencies;

- Require or offer refresher training at least as often as they require or offer training for voice calls, but at a minimum, every six months;

- Develop and implement a public education program to promote the use of 9-1-1 by individuals who use TTY's; and

- Conduct and document a semi-annual audit of the quality of services provided to TTY users and the adequacy of the maintenance of TTY's and related equipment.

911 and TTY Equipment

Traditional 911 calls have relied primarily on both the caller and the call taker using telephone equipment to speak and hear both sides of the conversation. To effectively communicate with people with hearing and speech disabilities, and to meet the mandates of the ADA, 911 centers must be equipped with the appropriate equipment to communicate with those who use text devices. However, simply equipping the 911 center is not enough. Communications officers must understand how 911 operational procedures are influenced or changed by the use of text devices and how to effectively use TTY and other related equipment.

Consumer Equipment

Communications officers should have a basic understanding of the TTY equipment used by consumers in order to effectively communicate with citizens who rely on text devices as their method of communication.

Standalone TTY's are special electronic devices that let people who are deaf, hard of hearing, or who have speech disabilities use the telephone to communicate, by allowing them to type messages back and forth to one another instead of talking and listening. A TTY is required at both ends of the conversation in order to communicate.

With this device, you set a telephone handset onto special acoustic coupler built into the TTY (some TTY models can be plugged directly into a telephone line). Then, type the message you want to send on the TTY's keyboard. As you type, the message is sent over the phone line, just like your voice would be sent over the phone line if you talked. You can read the other person's response on the TTY's text display. This equipment was designed in half duplex mode where only one person can type at a time, thus creating the need for "turn-taking" throughout the conversation.

Various features are optional, such as printers, memory, pre-programmed messages, direct connect (eliminating the need to use the acoustic coupler), etc.

Wireless/cellular compatible TTY's are similar to the stand-alone units but are designed to be compatible with selected cellular phones so that the consumer can enjoy the convenience

of wireless calling anytime, anywhere. All external factors to general wireless calls (i.e. static, dropped calls, congestion, etc.) apply with wireless TTY calls as well.

Portable/compact TTY's have been manufactured to be able to carry in purses, briefcases or backpacks while maintaining the same features described for standalone and wireless TTY's. They have rechargeable batteries that will last several hours so that AC power is not required. This makes virtually EVERY telephone, and call, plausible to be from a TTY user.

Public TTY's are also available. There are several types of TTY's designed for public use, and the Public TTY makes TTY calls from public facilities easy and reliable. There are different models for both indoor and outdoor use. Motorized models offer maximum protection from vandalism. The stainless steel TTY keyboard remains protected in a metal drawer until a TTY call is placed. The drawer opens automatically when another TTY answers and closes again when the call is finished. Note that this type of call may appear to be a silent or open line coin call. For this reason, communications officers should query the line using their TTY in order for the drawer to open so that the caller can communicate with the 911 operator. The shelf-top Public TTY can be used as an acoustic TTY using the payphone handset or it can be connected directly into the telephone line.

911 Equipment

Traditionally, 911 centers are equipped with a wide range of different types and brands of equipment. TTY equipment used in 911 centers includes, but may not be limited to, the following types:

Standalone TTY's in 911 centers are similar to those which are used by the consumer. However, in a 911 environment, these units should include features such as a built-in printer and pre-programmed messages. Some models will print the date and time of each call and keep an exact record of the conversation. They may have an acoustic connection or may be wired directly into the telephone line.

Integrated workstations feature computer telephony used in PSAP's and will have integrated TTY functionality built into the system. There are NENA standards that describe how this interface should be designed. Typically, the GUI (Graphical User Interface) provides a TTY window when the communications officer manually initiates the TTY function or when it automatically detects Baudot tones on the line. The conversation appears on the computer screen and there is typically a way to print a hard copy of the call. All systems have the capability of pre-programmed messages. Where headsets are used, there should be the capability of muting or attenuating the TTY Baudot sound emitted from the caller. Also, this type of system must have the capability of moving from voice to TTY and back, in a single call, in order to respond to VCO/HCO calls.

Detection Equipment

Some 911 agencies may have TTY detection equipment installed within their agency to assist communications officers in recognizing that a TTY call has been received by producing a recorded voice announcement to the communications officer. It is important to note, however, that detection equipment will not detect silent calls because it only recognizes TTY calls that transmit Baudot tones, such as when callers press keys to emit tones. This

equipment will **not** recognize TTY calls when the caller does not emit tones and instead waits for a TTY response. Thus, TTY detection equipment does not eliminate the need for call takers to query every silent line with a TTY.

Equipment Testing and Documentation

The Department of Justice, in their *"Access for 911 and Telephone Emergency Services"* technical assistance document, states that frequent testing is essential to ensure direct, equal access. Testing call takers and their equipment is also the one of the most effective ways to ensure compliance with the ADA's requirement that accessibility features are maintained in operable working condition. The ADA does not specify how testing is to be conducted. DOJ believes, however, that PSAP's should conduct an internal testing program in which they conduct random TTY test calls of each call-taking position. The tests should be designed to ascertain whether TTY equipment functions properly and whether personnel have been adequately trained to recognize TTY calls quickly, to operate TTY equipment, and to conduct TTY conversations. The Department of Justice recommends the following for an effective testing program:

- To test whether call takers have been trained adequately to recognize TTY calls, agencies should conduct two types of test calls--silent, open line calls in which no tones are emitted, and calls in which the caller introduces the call by transmitting TTY tones. Tests should be unannounced.

- It is best for PSAP's to keep records of the results of all test calls, including, at a minimum:
  - the date and time of each test call;
  - identification of the call taker and call-taking position;
  - whether each call was silent or transmitted tones;
  - whether the caller received a TTY response and the content of the TTY response;
  - the time elapsed and number of rings from the initiation of the TTY call until the call taker responded by TTY; and
  - whether the call was processed according to the PSAP's standard operating procedures.

The testing program should cover each call taker and each position.

Troubleshooting

Because TTY equipment varies from agency to agency and may be an integrated TTY or a stand alone TTY, each communications officer should learn the specific procedures for troubleshooting their TTY equipment so as to manage problems as they may occur during a TTY call.

TTY devices emit Baudot tones that are in the human audible hearing range, thus these Baudot tones are transmitted over normal telephone lines just as normal speech tones are. This can result in transmission difficulties. Some issues may be within the telephone network (i.e. noise) and there is relatively little that can be done by a PSAP to resolve that type of problem. Other issues can be

related to equipment failure on the PSAP side. This means that in every case where transmission failures have occurred, it must be investigated and documented.

During the development for wireless TTY compatibility over the digital network, it was discovered that some PSAP equipment is just out of tolerance, wherein landline TTY calls will work, but the digital wireless TTY calls will not work. Every PSAP must undergo a special test on their equipment to determine if their 911 equipment is out of tolerance, and if so, determine where the problem lies so that it can be resolved. This will need to be done initially and any time there are equipment changes at the PSAP.

911 Operational Procedures

Proper TTY Protocol

Effective TTY communications are dependant upon the communications officer's use of proper TTY protocol and etiquette.

TTY users are taught to use special syntax and protocol for indicating certain things, similar to the way we use punctuation. In English sentence structure, we commonly use periods, commas, apostrophes, questions marks, exclamation points or quotation marks to indicate the end of thoughts, separation of thoughts, connection of two words, asking of questions, emphasizing points or to indicate that someone made a comment. For TTY communications, the use of such punctuation takes up too much time and can confuse the caller because they do not normally use punctuation to indicate these ideas. Therefore, in order for you to effectively communicate with TTY users, you must be familiar with proper TTY protocol.

Go Ahead (GA)

It is extremely important to type the term GA when you are through with your statement and want a response from the person on the other end of the line. The term ***GA*** means "go ahead, it's your turn to talk."

Example: springfield 911 here ga

If a sentence is not ended with GA, do not hangup! Type "are you there qq ga".

Question (Q or QQ)

Tone of voice is not transmitted on a TTY, so it is necessary to type the letters ***QQ*** when asking a question. In some instances, the caller will only use one ***Q*** to indicate a question. Follow the caller's lead and remember to add ***GA*** if you want them to respond immediately.

Example: springfield 911 where is your emergency qq ga

Go Ahead, Stop Keying (GA SK)

When getting ready to end the conversation, the appropriate protocol to use is to type ***GA SK*** which literally means "go ahead and stop keying" which indicates that the other party is ready

to end the conversation. You may see this typed as ***GASK*** or ***GA SK.*** Either of these variations is acceptable, however, avoid using ***SK GA*** because that means "stop keying go ahead" which is a contradiction and may confuse the TTY user.

Example: ***ambulance there now gask***

Stop Keying Stop Keying (SKSK)

SKSK literally means "stop keying, stop keying" but is used to indicate, "bye, I am hanging up now." This term officially ends a TTY conversation. Generally, a communications officer will allow the TTY caller to conclude the conversation first. However, in extreme emergencies, a communications officer may want to use SKSK for emphasis. If this is the case, the communications officer should NOT disconnect the TTY or turn it off. Leave the line open in case the caller has something else to add. An example of a communications officer using SKSK first would be after getting ***all pertinent information*** such as location from a caller who is reporting their house is on fire from within the structure. In order to stress the importance of the TTY user getting out of the house the communications officer may elect to use SKSK first.

Example: ***house leave now sksk***

Error Message (XXXXX)

When typing on a TTY, you may find that you make spelling errors. Instead of wasting time hitting the backspace key to correct the mistake, hit a couple of X's and the space bar and retype the word or phrase. You will find that errors will be made while typing on a TTY but if the error is not critical, do not waste time trying to correct it.

Example: ***is your phone number 345xxxx 3449001 qq ga***

Common Abbreviations

Some TTY users will use abbreviations to communicate more quickly. The communications officer should follow the TTY caller's lead as to whether or not abbreviations should be used. In other words, if the caller is freely using abbreviations, the communications officer can feel comfortable using abbreviations. If the caller is NOT using abbreviations, it is advisable for the communications officer NOT to use abbreviations. Some common abbreviations are as follows:

Note: The answers to the abbreviations are noted in small letters below the abbreviations.

ANS ***answer***	NBR ***number***	U ***you***	AMBO ***ambulance***
PH ***phone***	CUD ***could***	WUD ***would***	IMPT ***important***
BLDG ***building***	R ***are***	DR ***doctor***	NP ***no problem***
THX ***thanks***	ENUF ***enough***	CLR ***clear***	OPR ***operator***
CUZ ***cause***	UR ***your***	HLD ***hold***	HSPTL ***hospital***
CUL ***see you later***	XXXXX ***error***	MIN ***minute***	TMW ***tomorrow***
DIFF ***different difficult***	ASAP ***as soon as possible***	OIC ***oh, I see***	PLS ***please***
BSY ***busy***	THOT ***thought***	HLP ***help***	FONE ***telephone***
INFO ***information***	MSG ***message***	NXT ***next***	RPT ***report***
HOSP ***hospital***	MED ***medical or medicine***	BRB ***be right back***	

Language Formats

People who use TTY's to communicate will usually communicate in one of two different language formats. Some will type in an English format, which should be easily understood, while others will type in ASL Gloss. As defined previously, ASL Gloss (a.k.a. TTY Gloss or Gloss) is a method used to communicate through typing, as on a TTY, which uses English words to translate ASL concepts. Since there is no written form of ASL, this method results in the loss of the visual elements of ASL which are crucial to clear communications. When you are communicating with someone using a TTY, you must determine which communications format they are using and translate not only what they type to you, but also what you type to them, in the same format. For these reasons, communications officers need to be familiar with both language formats.

Standard/Simplified English

TTY users who become deaf, hard of hearing, or develop speech disabilities after developing their language skills will generally type using a typical English format. These users will type

in a way that should be easy for you to understand and they will use TTY protocol. Some of these callers will use abbreviations as a way to speed up the typed conversation. If you determine that your caller is using an English format, follow their lead as to whether to use abbreviations or not, but remember to use proper TTY protocol.

Examples of English Phrases

The following are sample English format messages using proper protocol:

what is your address qqga
what is your phone number qqga
what is ur ph nbr qqga
what is the problem qqga
what is prob qqga
how long ago did this happen qqga
is anyone hurt qqga
how old is person qqga
is the house on fire qqga
does he have a weapon qqga

Example of TTY conversation in English format

Here is a sample TTY conversation in English format:

springfield 911 where is your emergency qqga
1004 PEACHTREE ST GA
1004 peachtree st qqga
YES GA
what is wrong qqga
NEED AMBO I HAVE CHEST PAINS GA
ok ambo on the way what is your phone number qqga
PH NBR IS 7889687 PLS HURRY GA
ambo on way how old are you and how long have you hurt qqga
IM 58 AND IT STARTED ABOUT 10 MIN AGO GA
what is your name qqga
JOHN SIMMONS GA
ok mr simmons are you breathing ok qqga
A LITTLE SHORT OF BREATH GA
is there anyone else there with you qqga
YES MY WIFE BUT SHE IS DEAF TOO GA
that is ok can she go meet the ambo at the door qqga
YES GA
ok the ambo is there now have your wife open door gask
OK THANKS FOR YOUR HELP SKSK
ok sksk

American Sign Language

Because ASL is a visual language, and there is no written format, communications officers may encounter barriers when trying to communicate via a TTY. Therefore, it is critical that communications officers become familiar with ASL in order to more efficiently process emergency calls.

ASL is structured so that the main thought is signed or typed first with descriptive words after it. It does not include verb tenses or connecting words. It is important that you avoid using complex public safety terminology when communicating in ASL. For example, you should avoid words like conscious, unconscious, patient, victim, en route, etc. You should keep your terminology simple and in laymen's terms. For example you should use awake, no awake, person or person hurt, and on the way.

Once you determine that your caller is typing in ASL Gloss, if you pay close attention to what is typed, it will be fairly easy to understand what the caller is typing to you. Remember, ***in ASL, the sender will indicate a time reference first (if necessary), the main thought, descriptive words, then verbs with no verb tense and no connecting words such as "a, the, and, etc."*** However, it is very important that you be able to put your thoughts, questions or directions into ASL format so that your caller can understand what you are typing to them. ASL users will sometimes use common abbreviations to speed up the communications process.

Examples of ASL phrases

live you where qqga
phone you number qqga
ph nbr what qqga
problem what qqga
need you police fire ambo qqga
problem how long qqga
hurt where qqga
age person qqga
house fire qq ga
gun knife use person qqga
house out now sksk

Example of TTY conversation in ASL Gloss format

Here is a sample TTY conversation in ASL Gloss format:

springfield 911 where is your emergency qqga
HLP PLS AMBO HURT BAD GA
where ambo need you qqga
8442 SUNSET DR GA
8442 sunset drive qqga
YES GA
ambo on way problem what qqga
HUSB HEART HURT BAD GA

ph nbr what qq ga
8852435 PLS HURRY GA
ok husb awake qq breath qqga
YES GA
husb heart hurt how long qqga
5 MIN BAD BAD GA
age husb qq ga
62 GA
door open you qq ga
YES AMBO HERE QQ GA
yes ambo there now door open you gask
OK SKSK
sksk

Recognizing TTY Calls

In an emergency communications center, calls for assistance are received around the clock. The majority of those calls will be from people using a standard telephone to verbally report an emergency. However, there will be times when you will be call-taking and receive a call in which there is no verbal response or when there are tones on the line. Many communications officers assume that these are either hang-ups or fax machines. The truth is either of those calls could have been a TTY user trying desperately to obtain help with an emergency. Communications officers need to know that there are basically four ways to recognize incoming TTY calls and the proper procedures, according to your department, for handling each.

Silent Calls

When you answer any incoming call, if there appears to be no one there when you answer the phone, even after repeated attempts to get the other party to speak, place the handset in the acoustic coupler or transfer the call to the TTY (depending on configuration) and send a message such as “Springfield 911 GA” or “Springfield Fire Dept GA”. If it is a TTY call, you will know shortly after sending your message. If you receive no response it may be a caller that has turned away to assist with the emergency or another type of emergency, involving someone too afraid to speak or unable to speak. Follow your center’s procedures for silent calls. If you are an Enhanced 911 center, you will be provided Automatic Number Identification (ANI) and Automatic Location Identification (ALI) if your TTY call comes in on a 911 line, as with voice calls.

Beeping Tones

TTY tones are different than those of a fax machine or computer modem. TTY tones are short, intermittent beeps where faxes or modems tend to be longer solid tones. If you hear tones and you are not sure whether it is a TTY call or not, place the phone in the acoustic coupler or activate your TTY functionality, and attempt to communicate by typing a message on your TTY such as “Springfield 911 GA”.

If after several moments you do not get a response, attempt again to make verbal contact. Then follow your center's procedures for silent calls.

Telecommunications Device for the Deaf (TDD) Detector

If your department is equipped with a TDD Detector, you will hear a recorded announcement that advises the communications officer that there is an incoming TTY call. The Detector has already sent a message to the caller saying they have reached 9-1-1 please hold, and routed the call to one of your center's TTY's. Immediately initiate your TTY call handling procedures.

It is important to note, however, that a TDD Detector may not pick up on ALL incoming TTY calls. It monitors the phone lines for the tones or signals sent by a TTY. If there are no tones or signals on the line, the TDD Detector may not recognize the call as a TTY call and it will come in as a silent call.

Voice Announcer

The Voice Announcer is an optional feature which is on the caller's TTY that sends a message over the phone line to a voice phone. You will hear a computer voice which states "hearing impaired caller, use TDD" or some other similar phrase. Again, immediately connect this call to your TTY and begin handling the call. But you should note that ***ALL*** callers will ***NOT*** have this feature on their TTY.

TTY Procedures

The following are general guidelines for procedures to follow in handling TTY calls.

Receiving a TTY Call

When the emergency telephone rings, you should answer it following these procedures:

a. Verbally identify your agency name and include a directed question. Example: Springfield 911 where is your emergency?

b. If you do not get a response from the caller, you should verbally identify your agency again.

c. If you still do not receive a response, you should use your TTY to see if the caller is using a TTY. If your center's TTY is in the direct connect mode, you will transfer the call to the line to which the TTY is connected and the turn the TTY on or press the appropriate button to activate your TTY. If you are using the acoustic coupler mode, you place the handset in the coupler, making sure to place the cord to the left and then turn the TTY on.

d. In either mode, you then ***query the line*** by identifying your agency and include a directed question. Example: "springfield 911 where is your emergency qqga". This

is important because starting the TTY conversation with a directed question saves critical time in handling TTY calls which are by their nature slower.

e. If you still do not get a response you can type your message again or type "are you there qqga".

f. If you still do not get a response, follow your center's procedures for silent calls.

g. If you do get a response, then you would proceed with the TTY call by asking the important questions relative to the type of call.

h. Remember to:

1) Use proper protocol.

2) Determine if the caller is typing in standard English or American Sign Language and type in the appropriate format.

3) Avoid the use of commas, periods, question marks, apostrophes, and other standard English punctuation.

4) If all or part of the message is garbled, try tapping the space bar a few times or adjust the sensitivity of your TTY and request repetition of the message. This is a common occurrence on TTY calls. You can request repetition by typing "please repeat ga" or "I dont understand ga"

5) When you have determined what assistance is required, notify the caller of what action you will take.

6) When you are finished with your side of the conversation, type your closing remarks followed by "GASK". This notifies the caller that you are ready to hang up.

7) The caller will make closing remarks and type "SKSK".

i. If you receive a ***scrolling message*** when you query the line with your TTY, you should begin typing to stop the scrolling message. Scrolling messages can be generated by the caller if they have that option on their TTY.

Sending a TTY Call

If you need to make a call using your center's TTY, you should:

a. Dial the number using your phone's keypad and wait until the phone is answered.

b. Before enabling your TTY or connecting to your TTY's coupler, you should attempt to verbally communicate by identifying where you are calling from and who you are. The person answering the phone may be able to communicate verbally.

c. If you do not receive a verbal response or you hear TTY tones, you should activate your TTY.

d. Type your agency identifier, who you are and your reason for calling.

e. Example: ***this is springfield 911 operator smith I need more information ga***

f. This will establish rapport with the caller and make them more likely to communicate with you.

g. Then verify to whom you are communicating with to determine if they are the same person who called you.

h. Remember to:

1) Use proper protocol.

2) Determine if the person is typing in standard English or American Sign Language and type in the appropriate format.

3) Avoid the use of commas, periods, question marks, apostrophes, and other standard English punctuation.

4) If all or part of the message is garbled, try tapping the space bar a few times or adjust the sensitivity of your TTY and request repetition of the message. This is a common occurrence on TTY calls. You can request repetition by typing "please repeat ga" or "I dont understand ga".

5) When you are finished with your side of the conversation, type your closing remarks followed by "GASK". This notifies the person that you are ready to hang up.

6) The person will make closing remarks and type "SKSK".

Ending a TTY Call

When you are getting ready to end the TTY call, be sure to type "SKSK" and activate the print end date/time command (Check your TTY's operation manual). This will document the amount of time the call lasted.

Emergency communications centers should be equipped with TTY's which have print or memory storage capability so as to document the content of the calls made during an emergency. Just like tape recordings of 911 calls provide documentation, so does the transcript of the TTY call. You need to determine, based on departmental policy, how to best document TTY calls in your center. But, here are a few tips to keep in mind:

a. Make sure you know how to program your TTY equipment to print.

b. Determine how to program your TTY to print beginning date/time and ending date/time of the call.

c. When reading the printout, note that most TTY's are programmed to print what you typed in all small letters while it PRINTS WHAT THE CALLER TYPED IN ALL CAPITAL LETTERS. This is done for easier interpretations of who typed what.

d. Determine, based on your policy, where to file the printouts and how long they should be retained by your department.

General Etiquette

Remember, some general etiquette for communicating with callers via a TTY is as follows:

- Treat any silent call or any call with beeping sounds as a TTY call. Don't hang up until you have eliminated the possibility that it may be a TTY call.
- Do not panic. Handle a TTY call as you would any other call.
- Take your cue from the TTY user when to use standard/simplified English or ASL gloss.
- Always double check with the TTY user to confirm the address and telephone number they are calling from. Sometimes, numbers do not transmit well so you may actually save time by spelling the numbers if confusion arises.
- Remember, as a general rule, only one person can type at a time. However, you may receive automated, scrolling messages that will repeat the same phrase over and over. This message will not stop until you begin to type. So, if you receive an automated message via a TTY, you should interrupt that message by typing to the caller.
- Keep your questions direct and simple.
- Allow the TTY user to respond to questions one at a time because they may not have a printer and once the screen is full, the words will scroll off of the screen.
- Do not worry about using punctuation marks.
- Avoid use of English idioms, public safety terminology, complex sentence structures and uncommon vocabulary. Use place instead of location, help instead of rescue, send instead of dispatch, etc.
- If you must put the TTY caller on hold, inform the caller.

Variations of TTY Calls

Now that we have spent some time learning how to communicate using a TTY, we should address some variations or alternative methods for communicating with callers. What we have addressed so far involves both the caller and the communications officer using a TTY for their side of the communications. However, there are several other methods used by some TTY users of which we must be familiar with and ***MUST*** accommodate if requested.

When receiving an emergency TTY call, you may receive a request from the caller for VCO or HCO. These are a variation of a standard TTY call where both you and the caller are using a TTY to type your conversation. Both VCO and HCO communications include text and voice communications instead of text-only and require some additional techniques to be employed on our part in order to communicate effectively. Additionally, some TTY callers feel more comfortable contacting us through the use of a Telecommunications Relay Service (TRS). In order to efficiently and effectively handle calls from a TRS, you must be familiar with the procedures used by the communications assistant (CA) at the TRS which we MUST follow.

Voice Carry Over (VCO) Procedures

Some people may call an emergency communications center using a TTY and ask to use VCO. VCO stands for Voice Carry Over. It is a communication hybrid of TTY conversation which involves both text and voice. VCO allows a person with hearing loss to speak directly to the call taker and read the response that is typed back. Many persons who became deaf or hard of hearing later in life prefer to speak instead of type. They use voice carry over (VCO) by speaking directly into the phone and then you would type back via TTY to the caller. VCO can be accomplished with standard stand-alone TTY equipment simply by having the call taker alternate between listening on the handset when the caller is speaking, and placing the handset in the TTY acoustic coupler to type a response.

If your center is equipped with TTY's which are built-into your console/computer, you need to check with your supervisor for procedures to accommodate requests for Voice Carry Over. It is important to remember to wait on the caller to verbalize the GA for "go ahead" before you begin typing your response.

CapTel Calls (VCO)

The Captioned Telephone ("CapTel") is a new telephone that allows deaf and hard of hearing people to receive both the voice and written captions of what the other party says. The captions are supplied by a Telecommunications Relay Service (TRS) for all non-9-1-1 calls. The CapTel user uses their own voice to talk directly back to the other party.

When a CapTel user dials 9-1-1, the CapTel phone calls 9-1-1 directly (it does not route through the TRS service). The CapTel phone automatically converts into a Voice Carry Over (VCO) phone. This means the caller accesses 9-1-1 directly, but will not receive word-for-word captions. The call-taker needs to respond by following the same procedure used for handling VCO calls. Basically, the call-taker needs to communicate by typing messages to the CapTel user on a TTY, and then listening to the CapTel user talk back by voice. The call-taker's typed TTY messages show up in the display of the CapTel phone. The CapTel user

does not have a keyboard, so they cannot type TTY messages back to the call-taker. They can only use their voice to talk to the call-taker. Thus, the conversation is half in text (TTY) and half in voice.

VCO call handling capability is currently required of all 9-1-1 PSAP's by the US Department of Justice, and thus the CapTel phone operating in VCO mode does not represent a new requirement for 9-1-1 PSAP's which should already have existing standard operating procedures (SOP) to handle VCO calls.

Hearing Carry Over (HCO) Procedures

You may receive a TTY caller who requests HCO. HCO stands for Hearing Carry Over. People with speech impairments who are not deaf or hard of hearing often prefer HCO, which allows them to type their words on a TTY to you and hear your spoken responses through their handset. HCO can be accomplished using standard stand-alone TTY equipment by alternating speaking into the handset and placing the handset in the TTY acoustic coupler when the caller types a response.

If your center is equipped with TTY's which are built-into your console/computer, you need to check with your supervisor for procedures to accommodate requests for Hearing Carry Over. It is important to remember to verbalize the GA for "go ahead" when it is their turn to respond.

Telecommunications Relay Service (TRS) Call Procedures

Another variation to a TTY call is one which is received into the communications center from a Telecommunications Relay Service. Telecommunications Relay Services (TRS') enable standard voice telephone users to talk to people who have difficulty hearing or speaking on the telephone. Under Title IV of the Americans with Disabilities Act, all telephone companies must provide free relay services either directly or through state programs throughout the 50 states, the District of Columbia, Puerto Rico, and all of the U.S. territories. Businesses, government agencies, family, friends, and employers of persons with hearing and speech disabilities make and receive relay calls everyday.

TRS' use operators, called "communications assistants" (CA's), to facilitate telephone calls for people who have difficulty hearing or speaking, and other individuals. Federal Communications Commission (FCC) rules require telephone companies to provide TRS' nationwide on a 24 hour-a-day, 7 day a week basis, at no extra cost to callers. Conversations are relayed in real-time and CA's are not permitted to disclose the content of any conversation. Relay callers are not limited in the type, length, or nature of their calls.

There are several types of TRS' available. Any of these may be initiated by an individual with a hearing or speech disability, or by a conventional telephone user.

Text to Voice

This type of TRS uses a CA who speaks what a TTY user types, and types what a voice telephone user replies. This is the type of TRS call most 911 operators will experience. When you receive a call from the Relay Service follow these procedures:

When you answer your phone, the Relay Service Communications Assistant (CA) will state that it is a Relay Service call and ask if you are familiar with Relay Service.

- ☎ If you are not, the CA explains the Service:
- ☎ The person calling you is using a TTY/TDD.
- ☎ The TTY/TDD user will type his/her message and the CA relays the message to you verbally.
- ☎ After each message is completed, the CA will say to you, "Go Ahead."
    - ☞ Voice your message to the CA in first person. After each message is completed, say "Go Ahead." The TTY/TDD user then responds with his/her message.
    - ☞ Please speak slower than usual because the CA will be typing ***everything you say.*** Your typed message is then relayed to the TTY/TDD user.

Communications officers should be prepared to be specific and speak in “first person” when taking calls from a Relay Service. It is also important to realize that relay service operators are **NOT** allowed to interpret to you what the caller meant or what you meant to the caller, so be specific.

VCO via TRS

VCO TRS enables a person who is hard of hearing, but wants to use his/her own voice, to speak directly to the receiving party and to receive responses in text form through the CA. No typing is required by either the calling or the called party.

HCO via TRS

HCO TRS enables a person with a speech disability to type his/her part of the conversation on a TTY. A CA reads these words to a called party, and the caller hears responses directly from the called party.

Speech to Speech

A person with speech disability uses a CA who is specially trained in understanding a variety of speech disorders. The CA repeats what the caller says in a manner which makes the callers words clear and understandable.

Video Relay

This type of TRS enables individuals who use sign language to make relay calls through CA's. The caller signs to the CA with the use of video equipment and the CA voices what is signed to the called party and then signs back the called party's message to the caller.

Documentation

Actual calls

Although there are no specific requirements to uniquely document actual TTY calls, communications officers should understand that if their agency produces hard copies of their TTY calls, they should only maintain those copies as long as they would a record of their voice 911 calls.

Test calls

Previously, we discussed the DOJ requirements for test calls which function to test both the communications officer's ability to recognize and handle a TTY call, and to verify that equipment is functioning properly. As a reminder, these test calls must be documented and should contain at least the following:

- the date and time of each test call;
- identification of the call taker and call-taking position;
- whether each call was silent or transmitted tones;
- whether the caller received a TTY response, and the content of the TTY response;
- the time elapsed and number of rings from the initiation of the TTY call until the call taker responded by TTY; and
- whether the call was processed according to the PSAP's standard operating procedures.

The testing program should cover each call taker and each position.

Consideration should be given to establishing a test call procedure which involves test calls placed by volunteer TTY users. This type of program is commonly referred to as a Phone-Pal Program. This program establishes specific guidelines for how test calls will be made, evaluated and documented. For more information on how a Phone-Pal Program works, refer to the Association of Public Safety Communications Officials (APCO) ADA Training Standard for Communications Officers, under Appendix B.

For more information or additional training courses, please contact:

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