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In order to meet Americans with Disabilities Act (ADA) requirements and to support the whole community, including people with disabilities and others with access and functional needs, all emergency management materials are to be developed in accessible formats in order to integrate the needs of people with disabilities. In addition, state agencies and local jurisdictions must support auxiliary aids and services to provide effective communication to persons with disabilities. The topics below offer a general guide for Texas state agencies and Texas local jurisdictions such as cities and counties. Organizations may add additional internal policies and procedures to develop guidance for their needs. The most common legal basis for requiring accessible information is the Americans with Disabilities Act, a civil rights law that requires all state and local governments to take steps to ensure that their communications with people with disabilities are as effective as communications with others, and requires state and local government agencies to provide equal access to programs and services.

Before a Disaster Strikes

Local emergency management professionals should consult with their local television stations and disability and functional-needs stakeholder groups in non-disaster times to discuss the stations’ requirements under the Federal Communications Commission’s requirements for emergency broadcasts and accessibility of information on television.

1 ADA Best Practices Tool Kit for State and Local Governments: General Effective Communication Requirements under Title II of the ADA

Functional Needs Support Services (FNSS) are defined as services that enable children and adults with or without disabilities who have access needs and functional needs that must be met in order to maintain their health, safety, and independence. This may include personal assistance services (PAS), durable medical equipment (DME), consumable medical supplies (CMS), and reasonable modification to common practices, policies and procedures. People who need FNSS may have sensory, physical, mental health, cognitive and/or intellectual disabilities that affect their ability to function independently. Additionally, elderly people, women in the late stages of pregnancy, and people requiring communication assistance and
bariatric support (that is, help that is needed because of obesity) may also benefit from FNSS.

For more information, see ADA Best Practices Tool Kit for State and Local Governments Chapter 3.

2 Legal Authority

The Stafford Act and Post-Katrina Emergency Management Reform Act (PKEMRA), together with federal civil rights laws, require integration and equal opportunity for people with disabilities in general population shelters.

The Americans with Disabilities Act of 1990 (ADA), the Rehabilitation Act of 1973, and the Fair Housing Act (FHA), define the scope of effective communications.

Additionally, communication providers must comply with Federal Communications Commission orders. The orders are published in sections 716 and 717 of the Communications Act of 1934, as enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010. For the 2012 biennial report to Congress, go to Communication and Video Accessibility Act of 2010.

Texas Accessibility Standards (TAS), in addition to ADA and other federal mandates, contains scoping and technical requirements for accessibility to sites, facilities, buildings, and elements by people with disabilities.

Emergency managers and shelter planners are encouraged to investigate their applicable state laws, regulations, and local ordinances.

Section 508

The Justice Department’s “Section 508 report to the President and Congress: “Accessibility of Federal Electronic and Information Technology.”” The report, authorized under Section 508 of the Rehabilitation Act of 1973, as amended (Section 508) provides findings based on a survey of federal agencies on the accessibility of their electronic and information technology (EIT) and the procedures used to implement the requirements of Section 508.

“Technology and technological innovations can improve everyone’s lives. However, if technology is not accessible, persons with disabilities can’t benefit from those improvements,” said Thomas E. Perez, Assistant Attorney General of the Civil Rights Division. “It is not terribly difficult or expensive to ensure that technology is accessible, but accessibility has often been an afterthought. Modifying existing technology to make it accessible is much
more difficult and much more expensive than designing technology in an accessible manner in the first place.”

Section 508 requires federal agencies to ensure that their EIT is accessible to people with disabilities, unless certain exceptions apply. EIT includes telecommunications products (such as telephones), information kiosks and transaction machines, websites, multimedia and office equipment, such as copiers and fax machines, computers, software, firmware and similar products and services. Specifically, Section 508 requires federal agencies to ensure that EIT they develop, procure, maintain, or use allows employees with disabilities and members of the public seeking information or services to have access to and use of information and data that is comparable to that available to people who do not have disabilities. Section 508 also requires the attorney general to report and offer recommendations periodically on the state of federal agency compliance with Section 508, including actions regarding individual complaints.

Related:

Texas Government Code 2054, Subchapter M, enacted in 2005, requires that all state agencies, including universities and institutions of higher education, provide state employees and members of the public access to and use of electronic and information resources. State web accessibility standards, outlined in Texas Administrative Code Chapter 206, are in alignment with federal regulations as outlined in Section 508 of the Rehabilitation Act of 1973, as amended in 1998.

State standards for providing accessible software and hardware products to state employees with disabilities are outlined in Texas Administrative Code, Chapter 213.

References:

- Statewide EIR Accessibility Website (DIR)
- Texas Administrative Code Title 1, Chapter 206 and Chapter 213
- Texas Government Code 2054, Subchapter M
- Section 508 of the Rehabilitation Act of 1973
- World Wide Web Consortium (W3C)
3 Purpose

This toolkit applies to emergency management and public information professionals who work for or with local jurisdictions to communicate warnings, notifications, and other messages to news media and to the public. It also contains face-to-face operational communication tools for shelter managers and first responders. The purpose of the toolkit is to help ensure that emergency communications services and equipment address the functional and access needs of people with disabilities as part of a “whole community” approach endorsed by FEMA.

This toolkit is designed to provide information to first responders and emergency managers about interacting with people with disabilities and to identify disability leaders in the local communities.

For information about the disability population and about assistive technology, see the resources below: Accessibility by the Numbers and Understanding Assistive Technology.

Accessibility by the Numbers

- YouTube Video: Accessibility by the Numbers
- Download Audio MP3 File: Accessibility by the Numbers
- Download Instructional Word Document: Accessibility by the Numbers
- Download Instructional Adobe PDF: Accessibility by the Numbers

Understanding Assistive Technology

- YouTube Video: Understanding Assistive Technology
- Download Audio MP3 File: Understanding Assistive Technology
- Download Instructional Word Document: Understanding Assistive Technology
- Download Instructional Adobe PDF: Understanding Assistive Technology
4 Situation and Assumptions in Emergency Situations

This document outlines common communication issues that emergency managers, first responders or public information officers may encounter during emergencies and disasters, and presents guidance for providing an integrated, communication approach for people with and without disabilities.

This guidance is not intended to establish new legal obligations, alter existing obligations, or constitute a legal interpretation of the statutes that are the basis of the guidance materials. It does not duplicate or cover all requirements found in existing or potential communications plans or standard operating procedures. It is a resource to support people with disabilities by integrating effective communications into the planning process and existing documents. Information presented in this toolkit may have been summarized, modified, and/or combined with appreciation from other sources.

Since emergency management information is available to the public on Texas state agency, city, and county websites, it is imperative that the website’s emergency management information be accessible so that all people can use it. Many people with disabilities use “assistive technology” to enable them to use computers and the Internet. People who cannot see computer monitors may use screen readers, which are devices that speak the text that would normally appear on a monitor. People who have difficulty using a computer mouse can use voice recognition software to control their computers with verbal commands. People with other types of disabilities may use other kinds of assistive technology, and new assistive technologies are being introduced every day.

Poorly designed websites create barriers for people with disabilities, just as poorly designed buildings prevent some people from entering. Designers may not realize how simple features built into a web page will assist someone who, for instance, cannot see a computer monitor or use a mouse.

One example of a barrier would be a photograph of a mayor on a town website with no identifying text. Because screen readers cannot interpret images, a person who is blind would have no way of knowing whether the image is an unidentified photo or logo, artwork, a link to another page, or something else. Adding a line of hidden computer code to label the photograph “Photograph of Mayor Jane Smith” allows the user to make sense of the image.

The Americans with Disabilities Act requires state and local governments to provide equal access to all programs, services, and activities for people with
disabilities. One way to help meet these requirements is to ensure that government websites are accessible to people with disabilities.

## 5 Language Usage

Use appropriate language when referring to people with disabilities.

### People First Language

Use “people first” language when talking about people with disabilities. For example, say “People who are blind” rather than “the blind.” In 2011, the Texas Legislature passed H.B. 1481 to amend law relating to the use of person-first respectful language in reference to individuals with disabilities. H.B. 1481 was passed to eliminate the use of terms and phrases that are demeaning and that create a barrier to people with disabilities as equal community members.

### Examples of People First Language

<table>
<thead>
<tr>
<th>People First Respectful Phrases</th>
<th>Inappropriate Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>person with an intellectual, cognitive, or developmental disability</td>
<td>retarded; mentally defective</td>
</tr>
<tr>
<td>person who is blind or person who is visually impaired</td>
<td>the blind</td>
</tr>
<tr>
<td>person with a disability</td>
<td>the disabled, handicapped</td>
</tr>
<tr>
<td>person who is deaf</td>
<td>the deaf; deaf and dumb</td>
</tr>
<tr>
<td>person who is hard of hearing</td>
<td>suffers a hearing loss, the deaf</td>
</tr>
<tr>
<td>person who has multiple sclerosis (MS)</td>
<td>afflicted by MS</td>
</tr>
<tr>
<td>person with cerebral palsy (CP)</td>
<td>CP victim</td>
</tr>
<tr>
<td>person with epilepsy, person with seizure disorder</td>
<td>an epileptic</td>
</tr>
<tr>
<td>person who uses a wheelchair</td>
<td>confined or restricted to a wheelchair; wheelchair bound</td>
</tr>
<tr>
<td>person who has muscular dystrophy (MD) or any other condition that causes a disability or disabilities</td>
<td>stricken by MD [or any other condition that causes a disability or disabilities]</td>
</tr>
<tr>
<td>person with a physical disability</td>
<td>crippled; lame; deformed</td>
</tr>
<tr>
<td>Term</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>person without a disability</td>
<td>normal person (implies that the person with a disability is not normal)</td>
</tr>
<tr>
<td>unable to speak, uses synthetic speech</td>
<td>dumb; mute</td>
</tr>
<tr>
<td>person with psychiatric disability or a person with a mental illness</td>
<td>crazy; nuts; mental; etc.</td>
</tr>
<tr>
<td>person who is successful, productive</td>
<td>has overcome his or her disability; is courageous (when it implies the person has courage because of having a disability)</td>
</tr>
<tr>
<td>People with disabilities</td>
<td>The handicapped, the disabled, the impaired</td>
</tr>
<tr>
<td>An individual or person with a disability</td>
<td>Disabled person</td>
</tr>
<tr>
<td>Has a disability</td>
<td>Suffers from a disability</td>
</tr>
<tr>
<td>Has had [an arm or both arms amputated; a leg or both legs amputated]</td>
<td>Is an amputee; is a double amputee</td>
</tr>
</tbody>
</table>

**Plain Language**

“Plain language” describes communication that is understood the first time you hear it or read it. Use the simplest, most clearly understood word that will do the job. For example, use “get” instead of “obtain,” “use” instead of “utilize,” etc. Research studies suggest that we aim for a middle school reading level or as close to a sixth grade reading level as possible.

Effective communication techniques should include a variety of approaches, such as

- plain language,
- nonverbal gestures,
- signage, and
- Both high- and low-tech media.

“Reader-friendly” materials reach a wider audience. If you are writing to the public, consider that the National Adult Literacy Survey showed that roughly half the adult population in the United States has low literacy skills. Even highly educated audiences appreciate plain language writing, because they can comprehend the text easily, without the overuse of unnecessarily,
inflated words. Remember, too, that any person, no matter how literate, can read poorly when tired, hurried, or stressed, such as during an emergency.

Clarity is the key in plain language writing. The goal should be for readers to be able to find, clearly understand, and act on information on the first read. Aim for as close to a sixth-grade reading level as possible. Consider a readability calculator such as SMOG www.online-utility.org/english/readability_test_and_improve.jsp to help gauge readability levels.

An excellent resource for plain language writing is www.plainlanguage.gov. It contains the Federal Plain Language Guidelines, plus links to training, before-and-after examples, and other related information. Another useful site is digitalgov.gov, which includes information about plain language web writing tips.

The Federal requirements for Plain Language are in the “Final Guidance for the Plain Writing Act of 2010,” published April 13, 2010. This guidance sets the standard for plain language communication by governmental entities. Additional sites for help with using plain language are the following:

- Plain Language Checklist http://centerforplainlanguage.org/about-plain-language/checklist/

The Plain Language Writing Process

The process for writing in plain language can be summed up in five steps:

1. Identify your audience
   a. Who are they?
   b. What do they already know (best way to determine reading ease or difficulty)?
   c. What do they need to know?
2. Organize information to meet their needs
   a. Alphabetical order
   b. Chronological order
   c. Topical order
   d. Inverted pyramid (main idea first, details later)
3. Write using plain language techniques (See below.)
4. Create a user-friendly, visually appealing design
   a. Informative headings and subheadings
   b. Left-aligned, ragged right
   c. Line length of 65 characters or less
   d. Bulleted or numbered lists
   e. Tables
   f. Illustrations
   g. White space
5. Test your document to see if it is really “plain”

Plain Language Writing and Formatting Techniques

Some plain language writing techniques include the following:
- Use active voice and present tense when possible.
- Avoid hiding changing verbs in nouns and use strong, simple verbs when possible (for example, say, “Let’s decide” instead of “Let’s make a decision,”)
- Use shorter sentences—an average of 10–15 words is a good range, but vary the length.
- Use one or two-syllable words or the simplest word that will do the job whenever possible. Shorter words are often a better choice than derivatives because they are more quickly understood (for example, use “I know” rather than “I am cognizant of” and “before” rather than “prior to”).
- Limit jargon and acronyms; focus on the audience and what they will understand; define terms you need to use but that they may be unfamiliar with.
- Use personal pronouns when possible to engage the reader.
- Use gender-neutral language.
- Use words instead of slashes.
- Use “and” instead of an ampersand (&)
- Spell out “for example” and “that is” instead of using “e.g.” and “i.e.”

Appeal to the readers’ interest with benefits and actions:
- Point out benefits clearly and think from the audience’s perspective.
- Focus on what actions they need to take or do.
- Make it easy for readers to understand what they need to do by using bulleted lists or checklists.

Some tips for formatting include the following:
- Make good use of white space:
  o Limit the amount of text and break up large blocks of text by using headings, illustrations, lists, tables, etc.
Ensure that there are adequate margins, gutters between columns, and space above headings.

- Use titles, subtitles, and subheadings to help the reader find information. Format them with heading styles to make them accessible to screen readers used by people with visual disabilities.

Charts, Graphs, Maps, and Visuals

Use charts, graphs, maps, and other visual aids with care:

- Only use charts or graphs when absolutely necessary. (Readers do not always understand them.)
- Limit the number of items running down and across.
- Give clear and simple directions about how to read the charts or graphs.
- Use pictorials instead of abstract charts or graphs. (Pie charts are easy to follow by most readers.)

6 Support Accessible Meetings

Know your community. Meet with community leaders, agencies and advocates. Know how people with disabilities are affected by the programs and services your organization provides. (For example, transportation, water and power, etc.)

The Department of Justice ADA website gives helpful information on setting up your meeting room and providing accessible information for all participants. This will be helpful for emergency management professionals in planning efforts to include leaders with disabilities in your planning process. For more information, go to Accessible Meetings.

7 Multiple Delivery Methods and Redundancy

Use the following guidelines about multiple ways to send your messages:

- There is no one medium that will reach everyone. Make sure your messages are compatible with multiple media and transmission systems.
- Use traditional media and social media, such as Facebook, Twitter, and Instagram when possible.
- Use alert and notification system(s).

Note: Alert and Notification systems that send text messages are usually limited to 140 characters. You may have to send several messages to meet the communications needs of persons with disabilities.
Communication with Traditional Media

Print, radio, and TV (live and taped) are the traditional media outlets that governments use during emergencies. However, social media has changed traditional communication in significant ways. We must do our best to reach as many people as possible, including people who are at risk, such as those who have disabilities, live in remote areas, or have low literacy levels, by effectively using all media outlets at our disposal.

Emergencies can cause a level of public interest and media inquiry that may require an increase in staffing and resources to ensure a reasonable media response. Some guidelines include the following:

- Know the facts, know the audience, and know the culture.
- Anticipate events and changes and work hard to prevent them when possible.
- Respond to crises with accurate verification, timely notifications, and effective responses to rumors.
- Provide timely, accurate, and helpful information to the public, media, and partners.
- Stay calm and focused; remember, “Perception is reality.”
  - Accuracy of information = Credibility
  - Timeliness of message = Confidence
  - Empathy and openness = Trust

Follow these guidelines when drafting notifications and warnings:

- Messages should be voiced, captioned, and in plain language.
- For ASL videos, the image of the interpreter should fill most of the screen (the general video the smaller part.)
- Provide video remote-interpreting for emergency alerts.
- Include door-to-door outreach when possible. (Use both door pounding and doorbell ringing. Door pounding is better than knocking because some people may not hear a knock but may respond to the vibration. Some people who are deaf have special “doorbells” that set off a different and visual alert, such as a blinking light.)
- Use 20-point font (standard large print) for low-vision readers.
- When creating call center information, provide clear, step-by-step directions; and use an “actions to take” and a “what to do” approach.

Spokespersons

The spokesperson brings the agency to life and embodies the organization’s human identity. He or she transforms the “it” to a “we” regarding any
incident or event. Remember, you don’t just read a statement; you are the statement. Everything from facial expression and tone of voice to posture and demeanor is part of the statement. Your responsibility is to connect with the audience, whether through media channels or in person. As the spokesperson, you must be responsible for the following:

- Know your organization’s policies about emergency public information.
- Stay within the scope of your responsibilities.
- Be open and honest.
- Provide follow-up on issues.
- Use visuals when possible.
- Show points through examples or stories. Ensure that they help your point, not exaggerate or minimize it.
- Don’t over-reassure—the objective is to give accurate information with calmness and concern.
- Acknowledge uncertainty—offer what you know.
- Acknowledge people’s fear—it’s normal and human to fear the unknown.
- Expect to address “what if” questions—it’s unwise to fuel “what if’s” when the crisis is contained but if we don’t address the obvious and realistic issues, we can lose credibility.
- Give people something to do or a choice of actions to take.

**Accessible Live Press Conferences for State and Local Governments**

The videographer should keep the sign language interpreter in the camera frame so that people who are deaf or hard of hearing are receiving the same information in real time as the general public.
Governor Rick Perry, center, stands at a lectern while an interpreter, left, who is fully visible, provides American Sign Language communication. Michael L Williams, Texas commissioner of education, left, and David Dewhurst, lieutenant governor, stand behind Perry. Photo credit: Stephen Stephanian, Office of the Governor.

Provide Real-Time Captioning during Live Press conferences.

Real time captioning is required during disasters because it provides information for people who are hard of hearing, elderly, visual learners, and people who are deaf who do not know American Sign Language.

Provide Auditory Description of Graphics.

When information is presented in a visual manner, describe the information for listeners who are blind or have low vision. For example, instead of saying, “all the counties in red should evacuate,” say “all the counties in red should evacuate; those counties are Travis, Williamson, Bell and McLennan.” A list of shelter locations displayed should also be verbally communicated. Description should be included for all graphics, charts, or maps displaying emergency information.
8 Developing Accessible Messaging

Document Accessibility Law

ADA and, if the government entities receive federal funding, the Rehabilitation Act of 1973, generally require that state and local governments provide qualified individuals with disabilities equal access to their programs, services, or activities, unless doing so would fundamentally alter the nature of their programs, services, or activities or would impose an undue burden. One way to help meet these requirements is to ensure that government websites have accessible features for people with disabilities. Section 508\(^1\) of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794d), has documented standards established by the U.S. Access-Board to help agencies comply with the law.

Section 508 standards help ensure that all web pages, documents, PDFs, spreadsheets, slide presentations, and/or multimedia posted to web pages or sent by email or shared on social media will be accessible and useable by persons with disabilities, including persons who use assistive technology.

Each agency and jurisdiction should develop a plan for making existing web content more accessible, ensure that staff and contractors responsible for web page and content development are properly trained, and post a telephone number or email address on the home page to provide a way for visitors to web pages to request accessible information or services.

Electronic Documents

Each agency and jurisdiction should ensure that all documents, slide presentations, spreadsheets, PDF documents, and any other documents are created in accessible formats; that staff and contractors creating any of the above documents are properly trained; and that flyers and documents have language and contact information on them for persons with disabilities to request auxiliary aids and services.

Accessible documents, products, services, or environments are those that can be used by people with varying abilities, may be mandated by disability rights law (for example, Sec. 508); may require additional planning, and are cheaper to include in the planning instead of remediating later.

\(^1\)Current 508 Standards: [http://www.accessboard.gov/sec508/standards.htm](http://www.accessboard.gov/sec508/standards.htm)
Draft Text from Refresh 508: [http://www.access-board.gov/sec508/refresh/draftruled.htm](http://www.access-board.gov/sec508/refresh/draftruled.htm)
Public Comments on the draft text: [http://www.regulations.gov/#!docketDetail;D=ATBCB-2010-0001](http://www.regulations.gov/#!docketDetail;D=ATBCB-2010-0001)
Office documents are text-based and do not include audio, video, or embedded interactivity. Examples are reports, letters, presentations, spreadsheets, etc.

Many software programs have specific built-in accessibility tools that people who create documents must know how to use in order to create accessible documents.

**Accessibility and Section 508 Compliance Guidelines**

More than four million Texans have disabilities that can affect their interaction with the Internet, the telephone, and other means of electronic communication. By making electronic and information resources accessible, providers can help Texas residents who have disabilities to have access to emergency information and related emergency services. Emergency managers must communicate in a manner that reaches the whole community. Most communications strategies use several types of communications technologies. These technologies can include web pages, email, text messaging, social media, streaming video or multimedia content, and telephones.

**What is Accessibility?**

Accessibility means that people with disabilities can access the same information, perform the same essential tasks, and receive the same services as people who do not have disabilities. When information technology and communications are accessible they are:

- Perceivable
- Operable
- Understandable and
- Robust

**Benefits of Accessible Information**

When information is prepared or coded in a manner that is accessible it is more likely your information can be found by everyone. The same standards that support good accessibility for web pages also support search engine optimization.

Accessible information is also more likely to work across a variety of browsers, computer platforms and mobile devices.

**Note:** The terms Electronic and Information Technology (EIT) used in Section 508, Information and Communication Technology (ICT) used in the refresh of Section 508, and Electronic and Information Resources (EIR),
used in the Texas Accessibility Standards for EIR, are deemed equivalent in their meaning when applied to accessibility policies, standards, and documents used by HHS agencies and their contractors.

**Accessibility Laws and Standards**

The most common legal basis for requiring accessible information is the Americans with Disabilities Act.

Texas Government Code 2054 Sub M. requires that all state agencies and state institutions of higher education must comply with Section 508, an amendment to the Rehabilitation Act of 1973 that requires federal agencies to make their electronic and information technology accessible to people with disabilities. State agencies receiving federal funding must also comply with Section 508 (Administrative), and all programs that receive federal funding must comply with Section 504.

In order to ensure effective and accessible communications to the whole community, emergency managers must identify which accessibility standards they are required to follow or will voluntarily adopt. Their content and web developers must be trained to understand and apply these standards to their information and communications technology. Contracted vendors must also be held to these same standards for emergency communications deliverables.

Section 508 of the Rehabilitation Act of 1973 (Sect 508) is based on Web Content Accessibility Guidelines (WCAG) 1.0. The WCAG from the World Wide Web Consortium (W3C) WCAG 2.0 are a commonly used and understood International accessibility standard that applies to all technologies deployed through the web including office documents and PDFs. These two primary national and international accessibility standards are being integrated.

**How does accessible web design benefit all Web users?**

One way citizens learn about local emergency management and community efforts is to visit the websites of local emergency management entities. Is your website accessible to everyone? If you have an accessible web design, it benefits all users of your website.

Some innovations were originally intended for people with disabilities but provide access benefits to all (curb cuts and automatic door openers are two of the most common). Accessible web content is a similar innovation. People gain access to the Web by using a variety of technologies, customized with differing personal preferences and configurations, including assistive technology or techniques that people with disabilities use. By recognizing
that this technological diversity exists and by developing web content that complies with standards such as the World Wide Web Consortium's Web Content Accessibility Guidelines, web authors can ensure that websites are accessible to the broadest audience.

For some specific examples of how to make websites accessible, go to accessible workplace technology.

**Quick Tips on Accessibility**

The basics for creating accessible websites are as follows:

- Present text as text (i.e. M.S. Word Art, bmp or jpg are image based which cannot be read by assistive technology.)
  - Use system fonts (do not use custom fonts as they will not be read properly by assistive technology)
  - Don’t use images of text (scanned documents of text)
- Add image descriptions, called alternative text, or “ALT text,” for images that convey information
- Use plain language in communications
- Make forms electronically fillable
- Choose a technology platform that broadly supports accessibility

For forms, text, and image based materials, HTML provides the most support and is the easiest format to make accessible for all.

**Resources**

The purpose of this section is to introduce emergency managers to the importance and need of making their information and communications technologies accessible to reach all members of the community at any stage of an emergency. Creating accessible information requires the right training, skills, and tools. This section provides links to resources and tools to help you get started:

The Texas Governor's Committee on People with Disabilities sponsors the learning modules listed below about making Microsoft Office 2010 documents accessible to people with disabilities. These modules were created by a multi-agency team of accessibility professionals. Accessible documents are more portable and usable for everyone, not just people with disabilities, because accessible documents work better across all web browsers, computer systems, and other devices. Ensuring that your documents are made in an accessible manner provides everyone with an equal opportunity to access information from your agency, program or service. The Committee encourages widespread use of these modules by public and private entities.
If you have questions, comments or compliments about these learning modules, please contact GCPD@governor.state.tx.us.

Videos and Resources:
http://governor.state.tx.us/disabilities/accessibledocs/

Health and Human Services Accessibility Sites and Materials:
http://accessibility.hhs.texas.gov/

Accessible Presentation Quick Reference Guide:
https://accessibility.hhs.texas.gov/docs/guidelines/AccessiblePresentationsQuickReferenceGuide.pdf

DARS Classroom Accessibility Materials:
https://accessibility.hhs.texas.gov/class_materials.asp

Add alternative text to images and objects
Alternative text, also known as alt text or Alt Text, appears when you move your pointer over a picture or object. Alt text helps people who use screen readers to understand the content of images in your document. For many readers, this is the only information they have about the images and objects in your document. Alt text should be included for any of the following objects in your document:

a. Pictures, clip art, charts, tables, shapes (that don’t contain text and are not in groups), SmartArt graphics, Groups (all objects in this list, with the exception of shapes, should also have alt text when in groups), embedded objects, ink, video and audio files.

b. See Add alternative text to a shape, picture, chart, table, SmartArt graphic, or other object or appropriate use of alternative text.

Specify column header rows in tables (Excel Spreadsheets)
In addition to adding alt text that describes the table, having clear column headings can help provide context and assist navigation of the table’s contents.

Use styles in long documents
Heading and paragraph styles, as well as tables of contents when necessary, make it easier for all readers of your document to follow it more easily. In longer documents, these elements can add structure for users who are using a screen reader or who rely on the visual cue of section headings to navigate as they read.
Create your own heading and paragraph styles. To learn more about this, see Add a heading or Create a Custom Style Set.

**Use short titles in headings**
When you use headings in a document, be sure to keep them short (fewer than 20 words). In general, headings should be, at most, one line long. This makes it easier for readers to quickly navigate the document, either by scanning it, or by using the Navigation pane.

**Ensure that all heading styles are in the correct order**
By using heading levels in a logical order, for example Heading 4 is a child of Heading 3, not Heading 2, assists users in navigating the document and finding information.

**Use hyperlink text that is meaningful**
Hyperlink text should provide a clear description of the link destination, rather than only providing the URL.

**Use simple table structure**
By not using nested tables, or merged or split cells inside of tables, you can make the data predictable and easy to navigate. For example, when you are designing a form, the entire document is often based on a heavily formatted table, which makes it very difficult for users to navigate it with a screen reader and requires them to piece together the content of each cell, which is read to them in an unpredictable order, to get an idea of the form’s content.

**Avoid using blank cells, rows or columns for formatting**
Using blank cells, rows, or columns to format your table could mislead someone using a screen reader that there is nothing more in the table. You can fix this by deleting unnecessary blank cells, rows or columns. If your table is used specifically to layout content within your document, you can clear all table styles.

**Give all sheet tabs unique names**
Sheet names should provide information about what is found on the worksheet, making it easier to navigate through a workbook. Any blank sheets in a workbook should be removed.

**Structure layout tables for easy navigation**
If you use a layout table check the reading order to be sure that it makes sense. Verify the table reading order by tabbing through the cells to check that the information is presented in a logical order.
Avoid using repeated blank characters
Extra spaces, tabs and empty paragraphs may be perceived as blanks by people using screen readers. After hearing “blank” several times, those users may think that they have reached the end of the information. Instead, use formatting, indenting, and styles to create whitespace.

Avoid using floating objects
Objects that are not in line with text are challenging to navigate, and they may be inaccessible to users with vision impairment. Setting text-wrapping around objects to Top and Bottom or In Line With Text makes it easier for people with screen readers to follow the structure of your document.

Include closed captions for any audio or video
If you use additional audio or video components in a document or workbook, ensure that the content is available in alternative formats for users with disabilities, such as closed captions, transcripts or alt text.

Check the reading level of your document.
Microsoft Word can check the readability of sentences. Readability is a measure of how hard a sentence is to follow.

PowerPoint Files
PowerPoint presentations may include audio, video, and embedded information. It is important to ensure that all PowerPoint presentations are made accessible to persons with disabilities.

Add alternative text to images and objects
Alternative text, also known as alt text or Alt Text, appears when you move your pointer over a picture or object. Alt text helps people who use screen readers to understand the content of images in your document. Alt text should be included for any of the following objects in your document:

a. Pictures, clip art, charts, tables, shapes (that don’t contain text and are not in groups), SmartArt graphics, groups (all objects in this list, with the exception of shapes, should also have alt text when in groups), embedded objects, ink, video and audio files.

b. See Add alternative text to a shape, picture, chart, table, SmartArt graphic, or other object or appropriate use of alternative text.

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2If you’re using PowerPoint 2010, you can download and install the Sub-titling text add-in for Microsoft PowerPoint (STAMP), which lets you easily create closed captions for video and audio in your presentations.
Specify column header information in tables
In addition to adding alt text that describes the table, having clear column headings can help provide context and assist navigation of the table’s contents.

Ensure that all slides have unique titles
Slide titles are used for navigation and selection by people who are not able to view the slide.

Use hyperlink text that is meaningful
Hyperlink text should provide a clear description of the link destination, rather than only providing the URL. Additionally, you can include ScreenTip text that appears when your cursor hovers over a hyperlink. Screen Tip text can be used in a way that is similar to alt text.

Use simple table structure
Do not make nested tables, or merged or split cells inside of data tables. The data is predictable and easy to navigate without those features, and difficult with them.

Avoid using blank cells for formatting
Using blank cells to format your table could mislead someone using a screen reader to believe that there is nothing more in the table. You can fix this by deleting unnecessary blank cells or, if your table is used specifically to layout content within your presentation.

Include closed captions for any audio or video
Whenever you use additional audio or video components in a presentation, ensure that the content is available in alternative formats for users with disabilities, such as closed captions, transcripts or alt text.

Ensure that the reading order of each slide is logical
People who cannot view the slide will hear slide text, shapes, and content read back in a specific order. If you are using objects that are not part of the slide template, it is important to be sure that they will be read by a screen reader in the order that you intend them to be read.

Increase visibility for colorblind viewers
Colorblindness affects a significant number of people, most often as an inability to distinguish between red and green, or seeing red and green differently. When creating presentations, it’s important to choose elements

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3If you’re using PowerPoint 2010, you can download and install the Sub-titling text add-in for Microsoft PowerPoint (STAMP), which lets you easily create closed captions for video and audio in your presentations.
that increase visual contrast so viewers who cannot rely on color distinction can still understand what they’re seeing. Some things you can do when building a slide deck include:

- Avoid using orange, red, and green in your template and text.
- Use texture in graphs, instead of color, to highlight points of interest.
- Circle or use animation to highlight information, rather than relying on laser pointers or color.
- Keep the overall contrast in your presentation high.

**Additional Information for Accessible Documents**

**Word 2010 Accessibility Checker**
Word 2010 includes a new accessibility checker that allows you to check for accessibility problems. The accessibility checker makes it much easier to identify and repair accessibility issues. To run the accessibility checker, select File > Info > Check for Issues > Check Accessibility.

**PowerPoint 2010 Accessibility Checker**
PowerPoint 2010 includes a new checker that allows you to check your presentation for accessibility problems. The accessibility checker makes it easy to identify and repair accessibility issues. To run the accessibility checker, select File > Info > Check for Issues > Check Accessibility.

The Accessibility Checkers will show accessibility errors (for example, images with no alternative text); warnings (for example, unclear link text) and tips (for example, slide reading order). Feedback about the importance of each item, as well as tips on how to repair it, is included.

**Docx and PPTX Formats**
The ".docx" and ".pptx" formats are the default file format for documents and files created in Word 2007 and newer or PowerPoint 2007 and newer. The format has some advantages (such as smaller file size), but is not as widely supported as the old ".doc" or ".ppt" format. Although there is a free download that allows users to open the newer format in older versions of Word or PowerPoint, some content will be lost in the conversion process. If the Word or PowerPoint file is going to end up on the web, or if you’re going to send it to someone and are not doing anything that relies on the newer docx or pptx format, consider saving files as Word 97-2003 Document (*.doc) or PowerPoint 97-2003 Presentation (*.ppt) in Office 2007 and 2010.

**Convert Word to PDF**
Many Word documents end up as PDF files. It is a convenient way to preserve formatting and accessibility information, assuming the file is
converted correctly. Read more on converting a Word document to accessible PDF in our Acrobat/PDF article.

Export PowerPoint to PDF
PDF is often the best format to display PowerPoint presentations on the web. The file size is relatively small, distracting slide transitions are removed, and everyone has a PDF reader. Most importantly, heading structure and other accessibility information will remain intact if you export the file correctly. If you have a presentation with tables, and if you know how to add additional accessibility information in Adobe Acrobat, it might be possible to create a PDF file that is more accessible than the original PPT file.

Resources
Many resources exist on the Internet that can assist you in ensuring that your documents, spreadsheets, and presentations are accessible. Below are 10 of these resources. Staff members should become familiar with the accessibility features in programs they use to create documents, spreadsheets and presentations. YouTube has several postings on “How to make ..... accessible.”

- Creating Accessible Word Documents—http://webaim.org/techniques/word/
- Creating Accessible Power Point presentations—http://webaim.org/techniques/powerpoint/
- Creating Accessible PDFs—http://www.howto.gov/web-content/accessibility/create-accessible-pdfs
9 Videos and Multimedia Accessibility
State of Texas agencies and local jurisdictions should ensure that all video and/or multimedia content will be made accessible for persons with disabilities by knowing what §508 requirements apply to their media.

508 Compliant Videos

- Option 1. Use a 508-conformant video player, and host videos with synchronized captions—and audio descriptions, if needed—on a government website.
  - Section 508-conformant videos have three main elements:
    1. A 508-conformant video player - Ensure that a person who requires keyboard navigation or an assistive device can navigate the window where the video plays (that is, the video player).
    2. Captions - The audio parts of your video appear as synchronized text at the appropriate time and give access to people who are hearing impaired or deaf.
    3. An audio description - A description of important video's visual elements, giving access to people who are blind or visually impaired.

- Option 2. Host a captioned video on a third-party site, and host the video (with captions and audio descriptions) on your government website in a separate, accessible video player.
  - Posting Videos on Third-Party Sites
    1. When posting videos on popular video sharing sites like YouTube, Vimeo, and others, remember that multimedia must be accessible regardless of where it's posted—on organization’s own website, on a social media site, or both. In any incident, an accessible version must exist online, even if people have to download it.
    2. Because organizations can't control the accessibility of media players' on third-party sites, agencies and jurisdictions must host Section 508-conformant, accessible videos on organization sites and provide a media player that is usable with assistive technologies (such as speech recognition software, screen readers, etc.)

Captioning
Captioning is necessary for people who are unable to hear the audio in a video. It's also helpful for people with cognitive disabilities, as well as for developing literacy, both in children and adults. Captions include speech and sound effects and indicate music or laughter, and identify multiple speakers.
Two types of captioning are available: open captioning and closed captioning.

1. Open captions are words that appear automatically on your video when you hit play; you cannot turn them off.
2. Closed captions don't appear unless you turn them on. You can also turn them off.

**Closed Captioning of Videos**

All videos should have closed captioning. YouTube has a feature that will automatically caption videos less than 10 minutes. However, you must have a written transcript ready and manually enter the captioning in order to ensure message integrity.

After you upload your video to YouTube, make your video "unlisted" at first and turn off the machine translation version that is automatically created. Then upload your text transcript. Let YouTube sync it up. Then you can review and edit the captioning to ensure caption timing matches the video. Once your YouTube video has captions, you may wish to download the captions and have them edited.

You can use the YouTube captioning features even if you are not going to post your video to YouTube. Simply keep your video "unlisted" or "private" and just download the video file with the captioning. Depending on what you use on your own site for embedding video (for example, JW Media Player), you may need to find an online converter to convert the YouTube SBT format to DXFP or other format that your video player supports.

**Multimedia**

Podcasts and other sound files:

A text equivalent for every non-text element shall be provided (for example, by means of "alt," "longdesc," or in element content).

**A note about text equivalents:** If you post videos or a multimedia presentation, only including text transcripts of these files does not fulfill Section 508 requirements; see the section "Videos and multimedia presentations" for help.

Videos and multimedia presentations

1. Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation, and all training and informational video and multimedia productions which support the agency's mission,
regardless of format, that contain speech or other audio information necessary for the comprehension of the content, shall be open or closed captioned. Both of these requirements mean that you must include captions—either open or closed captions—that are synchronized with your video or multimedia presentation.

2. All training and informational video and multimedia productions that support the agency's mission, regardless of format, that contain visual information necessary for the comprehension of the content, shall be audio described. If there is visual information, such as action or expressions, in the video that is necessary to understand the production's content, that information must be described in an audio file, which also must be synchronized with the video.

3. Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.

If you have a media item that contains this type of flashing, strobe lighting, or optical illusions, do not post it. Blinking objects may cause photosensitive epileptic seizures. If you find that you are overruled and must post this media, include a warning on your web page and do not automatically play the media or show the graphic when your page loads—allow your users to start and stop the media or click to access the graphic if they want to view it.

Software to play videos, audio, and multimedia

When a web page requires that an applet, plug-in, or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with 1194.21(a) through (l).

Modern web browsers often inform users when a missing plug-in is needed to access special content on a web page. It is best to provide a link to the required software (such as QuickTime, Flash, Real, etc.) on the page where your media is located. The software to which you link must also fulfill Section 508 requirements for software as outlined in Section 508 1194.21. Briefly, the requirements from this section are that the software must:

- Be navigable using a keyboard;
- Not interfere with accessibility features of other software or the operating system;
- Provide an on-screen indication of the current focus (the currently selected place of action);
• Provide information about the roles, states, and operation of each interface element to assistive technology;
• Use meanings consistently for any images that identify the software's controls, status, or program elements;
• Use the operating system to display text and contextual information;
• Not override any user defined display settings in the operating system;
• Give users the choice of turning off animations and displaying information from the animations in other method;
• Not rely only on color to prompt users, or provide information or context;
• Provide a wide variety of color and contrast settings (only if the application allows users to adjust color and contrast);
• Not cause blinking or flashing at a rate greater than 2 Hz and lower than 55 Hz; and,
• Ensure that users of Assistive Technology are able to fully use and navigate through electronic forms, and provide any necessary cues and directions to the Assistive Technology.

There are many social networking sites that are widely used by the public which may not be fully accessible, but organizations may want to use them to provide information. Many agencies have found that a practical approach to providing accessible content is to post videos and presentations on these sites and also post the same content, in an accessible manner, on their own sites.

**Key Areas to Test for Accessibility**

This isn't a comprehensive list but these are important items you'll need to check in addition to your general accessibility testing.

• Use your keyboard to navigate through the multimedia player: Use the tab, enter, and spacebar keys to start, stop, fast forward, rewind, turn on/off captions, maximize and minimize the window, and raise and lower the volume, in addition to any other controls your player uses. When testing with the tab key, be sure the tabbing order makes sense.
• Use a screen reader to review your pages, media player's controls, etc.: Check all of the items you reviewed with your keyboard, plus listen to any directions and cues; make sure there's nothing like "1 button; 2 button" (make sure the buttons are "labeled" with commonly used terms); listen to the entire page/window: isolate links, open lists of graphics and headings; listen to any synchronized audio description tracks); turn off your monitor while you listen to the screen reader and compare it to a script of the exact content that should be heard from the screen reader.
• Make sure your transcripts read exactly as the audio from your media; check the transcripts for proper punctuation; and, if any acronyms have been used, define them.
• Watch your video and check that the captions are visually clear and not "pixelated," especially if open captions have been used; make sure captions have been spell checked and reviewed for proper grammar and punctuation.
• Ask people with different disabilities to test your media project. Their results in using your media may be different from yours.

Resources

There are many resources on the internet that can assist you in ensuring that your video and multimedia information is made accessible. Below are samples of these resources. State and Local jurisdictions staff members should become familiar with the accessibility features in programs they use to create video and multimedia information. YouTube has several postings on “How to make… accessible,” encourage staff to view these videos if necessary.

• How To Add Captions to a YouTube Video - http://www.youtube.com/watch?v=9K4WJs94FfY&list=TLIqvgEnkVMTU
• Google YouTube Add Captions - https://support.google.com/youtube/answer/2734796?hl=en

10 Social Media Accessibility

State of Texas agencies and local jurisdictions should use social media and make it accessible for persons with disabilities by following the national guidelines for improving the accessibility of social media.

Social media is transforming how the government engages with constituents, allowing agencies and jurisdictions to share information and deliver services more quickly and effectively than ever before. This is especially true during

emergency and disaster situations. Agencies and jurisdictions using social media in times of disaster or for preparedness information should ensure that their messaging integrates the needs for persons with disabilities. In addition to the guidelines found in other sections of this document, agencies and jurisdictions should follow the guidance below when creating social media messages.

Purpose

The overall purpose of this section is to offer options of social media use in emergency preparation, response and recovery. We hope to encourage vulnerable communities to learn of different portals available to access instant, life-saving messages through social media. Some people have difficulty accessing important messages because social media platforms may have accessibility limitations.

Introduction

One of the fundamental challenges of emergency management is communicating effectively with the public before, during, and after an emergency. In recent years, social media have emerged as potentially powerful means of communication. One of the appeals of social media is that they not only allow emergency managers to broadcast messages to the public, but they also allow engagement with the public that can keep managers better informed and leverage the public as an asset in emergency response.

Social media in emergency management serve three primary functions: as channels for public service announcements, as sources of information for emergency responders, and as feedback loops that use the first two functions to develop “crowdsourced” capabilities.

Social Media as a Public Address System

Social media provide several useful avenues for broadcasting announcements to the public before, during, and after an emergency event. This use of social media closely resembles traditional communications strategies and consists of one-way communication from the broadcaster to the public. Emergency management agencies may use this approach to provide preparedness information and, when possible, warnings. During the response to and recovery from an incident, responders can use social media to notify the public about unsafe areas, announce the locations of shelters and other resources, and provide general status updates. Social media also provide good platforms for responding to incorrect information. Following emergency incidents, rumors circulate frequently on social networks and require monitoring.
Other advantages of using social media for post-disaster communications arise from the fact that many users access social media via smartphones. People often keep their phones with them, which means they are likely to have them in an emergency.

Social media have the potential to reach many people who may not use traditional communications.

Using social media as a public address system is widely employed by emergency managers.

Social media elements can easily be appended to existing public communications plans. Another benefit of this approach is that most social media software includes built-in metrics (such as numbers of “likes” on Facebook) that allow emergency managers to gauge the reach of their messages.

One possible risk of this approach is that users may expect an emergency management agency to respond to questions or calls for help delivered over social networks.

Directing the public to call 9-1-1 does not ensure that all needs for help will be met. Many people will expect that requests for assistance over social networks will be answered.

**Social Media as an Information Source**

Monitoring social media during an emergency can allow responders to develop a clearer common operating picture than they might otherwise have. Receiving information from the public with analyses of verified information from first responders may enhance situational awareness, or identify information gaps.

One of the challenges of monitoring social media for situational awareness is managing the information and identifying what is useful. Several aggregation tools exist that can help overcome this challenge. These tools collect information from multiple social media sites and filter it based on different criteria. While not perfect, the tools are useful enough that FEMA has included them in its training course on social media in emergency management (*IS-42: Social Media in Emergency Management*).

Crowdsourcing (using labor or information, etc., contributed by the general public to a project, often via the Internet and without compensation) is a way to enhance emergency response and recovery activities. The “Whole Community” approach to emergency management recognizes individuals, families, and communities as assets. Social media training, such as *Social*
Media for Natural Disaster Response and Recovery (PER-304), suggests several uses for crowdsourcing in emergency response.

Scope

This section provides tips, resources and applications to assist with accessibility challenges of social media. These practical guidelines may help the emergency sector, government, community, media and business to make social media messages more accessible, especially for those with disabilities or functional and access needs. Keep in mind that social media should be used in addition to traditional media (radio, TV, print and internet) to help streamline emergency public information.

The success of a social media message relies on its accessibility to individuals who receive the messages. Social Media communication should use plain language, clear English and be developed in accessible formats to support the devices and tools used by the public. As new social media tools are developed, review their accessibility capabilities. Work with community partners including disability representatives to test accessibility.

Tips and Guides for people with a disability on how to access social media

Twitter

Making tweets accessible

Photos, video, and audio

Put the following prefixes before tweets that have photos, videos, or audio. This allows people using screen readers to know what to expect before it’s read out loud. The uppercase formats are for further clarity to sighted users.

- Photos: [PIC]
- Videos: [VIDEO]
- Audio: [AUDIO]

Link back to the page that has a copy of the photo, video, or audio with a full caption or transcript.

Make your tweet serve as a descriptive caption so it has context for the item and then link back to the organization website for fully accessible content.

Displaying Tweets

Use the Twitter API or Embedded Timelines feature to display your agency’s tweets on your websites.
Embedded Timelines feature on Twitter appears to have accessibility built-in even for those who do not have JavaScript. You can tab through all aspects of the timeline and use the functions. While it appears that Twitter is building in accessible content within the Embedded Timelines and Embedded Tweets features, you should still test it out on your site prior to making it live. Note that Twitter recommends caching the content you’re pulling from Twitter because there is a rate-limit.

Add a link in your bio, or occasionally tweet that you have an accessible format of your tweets at [provide link].

**Composing Tweets**

Place hashtags or @mentions at the end of the tweet. This allows a screen reader to voice the main content of the tweet more clearly in the beginning, saving the service-specific speak for the end (the parts that sound confusing).

If possible, avoid using unfamiliar acronyms that would sound strange if read by a screen reader. If space allows, spell out the acronyms or use a different way to convey the information.

If the acronym is well-known and sounds the same when we speak as it’s intended to sound (for example, NASA), you don’t need to spell out “National Aeronautics and Space Administration.”

Use "CamelCase" for multiple words for hashtags; that is, capitalize the first letters of compound words (use #SocialGov, not #socialgov).

The following are resources for using Twitter:

- Easy Chirp: an alternative Twitter portal which enables tweets to be read with such assistive technologies as screen readers.
- [Twitter Help Center](#);
- Mobile apps: a wealth of accessible Twitter-related mobile apps are available on iOS-based such devices as the iPhone and the iPad. Apps include the main Twitter app, Twitterrific, Twittelator foriPad, Tweetosaurus, Tweetero, and TweetList Pro.
- Mobile Twitter website is another alternative portal. For more information, go to the mobile site m.twitter.com.
- Twitter apps: Accessible Twitter apps for iPhone, iPod Touch and iPad include the main Twitter app itself, Twitterrific, Twittelator for iPad, Tweetosaurus, Tweetero and TweetList Pro (links via [Applvis website](#)).
- [Twitter Help Center](#);
- [Sociability: Tips for Twitter](#);

**Facebook**
Making Facebook Posts Accessible
After posting the photo, video, or audio, immediately post a comment that directs users to the full caption or the full transcript. Always provide a link back to the organization page that hosts a copy of the photo, video, or audio with full caption or transcript.

If you have a YouTube channel, upload your video to your channel and make sure you enable closed-captions. Upload your own transcript to make sure the captions are accurate. Then post a link to your YouTube video as your status update, rather than uploading the video into Facebook. This will ensure that visitors will be taken to your accessible version on YouTube.

Composing Status Updates
Facebook provides ample space that allows you to spell out acronyms. Spell out the first instance of the acronym and add the acronym in parentheses after (for example, U.S. Geological Survey (USGS)). This is especially helpful for those using screen readers, because after the name is heard the acronym is spelled out, and the user will associate the sound of the acronym with the full name.

One potential barrier for blind or vision impaired users is finding friends without being able to see their photo. It’s helpful to know that the first search results will be people who live closest to you or have friends in common with you and are more likely to be the correct person.

Photo descriptions are helpful for screen reader users and can be added by using the ‘add a caption’ option beneath an image.

The following resources are useful for using Facebook:

- Mobile Facebook website: if the main Facebook website proves too difficult to use try the mobilesite m.facebook.com.
- Facely HD app: if you use an iPhone, iPod Touch or iPad, this app provides Facebook access that works with the Voiceover screen reader.
- Keyboard shortcuts: the Facebook website has some additional keyboard shortcuts available.
- Facebook Accessibility help
- Sociability: tips for Facebook

YouTube
The following tips will help you to overcome YouTube's accessibility issues:

- Accessible YouTube players: websites such as Accessible YouTube, Easy YouTube and Accessible Interface to YouTube provide screen reader-friendly websites for playing back YouTube videos.
• YouTube app: the YouTube app for iPhone, iPod Touch and iPad works with the VoiceOver screen reader.
• Captions: if a YouTube video is captioned, a ‘CC’ button will be available in the bottom right-hand corner of the video. Select this and captions should appear.
• Requesting auto-captions for your video: YouTube has the ability to automatically caption videos. After uploading your video, go to the captions and Subtitles pane and select the 'Request Processing' button. The captions are generally completed within 24 hours.
• Editing captions: The auto-captions service, while helpful, is not always accurate. The free online application “Overstream” provides a way to create and edit captions.

Resources

There are many resources on the Internet that can assist you in ensuring that your social media are accessible to persons with disabilities. Staff members should become familiar with the accessibility features in social media programs. YouTube has several postings on “How to make ..... accessible,” encourage staff to view these videos.

• Disability.gov—The federal government website for comprehensive information on disability programs and services in communities nationwide.
• Accessible Emergency Information—Videos under 18 Emergency Preparedness Topics and formatted to be friendly to deaf, blind, and vision impaired users.
• American Foundation for the Blind, Social Media Sites—http://www.afb.org/info/accessibility/creating-accessible-websites/captchas-on-social-networking-sites/235
• Making Facebook Accessible for Everyone—http://www.facebook.com/notes/facebook/making-facebook-accessible-for-everyone/71852922130
• Caption Videos and Multimedia—http://www.howto.gov/social-media/video/how-to-make-video-captions
• Lighthouse International—http://www.lighthouse.org/accessibility/
- How To Add Captions to a YouTube Video—[http://www.youtube.com/watch?v=9K4WJs94FfY&list=TLIqvgEnkVMTU](http://www.youtube.com/watch?v=9K4WJs94FfY&list=TLIqvgEnkVMTU)
- Google YouTube Add Captions—[https://support.google.com/youtube/answer/2734796?hl=en](https://support.google.com/youtube/answer/2734796?hl=en)

## 11 Print Messaging

### Large Print and Contrast

Provide a standard-text and large-text version of the message. For the large-text version, use the following guidelines:

- Use 20 pt. or larger Verdana or a similar san serif font.
- Exaggerate color, saturation and contrasting colors between foreground and background.
- When printing, consider using a contrasting background color, such as ecru or off-white.
Low Vision Font Sizes

Work with the individual to determine the most appropriate font size for his or her vision. Text should be produced in at least a 12 point and in a sans serif (that is, plain) font.

The following illustrates the same sentence repeated in Verdana Bold font sizes 12 through 48.

This is Verdana Bold 12 pt. font size.
This is Verdana Bold 14 pt. font size.
This is Verdana Bold 16 pt. font size.
This is Verdana Bold 18 pt. font size.
This is Verdana Bold 20 pt. font size.
This is Verdana Bold 22 pt. font size.
This is Verdana Bold 24 pt. font size.
This is Verdana Bold 26 pt. font size.
This is Verdana Bold 28 pt. font size.
This is Verdana Bold 36 pt. font size.
This is Verdana Bold 48 pt. font size.
12 Creating Audio Files

Recording program materials into an audio file or on an audio CD-ROM disk is a good alternative to providing written material. Some people who are blind or have visual disabilities cannot or prefer not to read braille or large print due to reading fatigue or low braille skills, and may find audio more useful.

Agencies and jurisdictions should use staff members to create audio formats in-house:

- Record in a room where there is no background noise;
- Read at a moderate pace and articulate words clearly;
- Identify the reader at the end of the recording. If using a digital audio disk: identify the track number, the document title, and the page range being read on each file or track.

Computer documents provide an efficient, simple means of transferring print information to audible communication. Many people have computers, tablets, and phones with recording and speech output. By having an accessible computer document, the electronic process is often the fastest way to allow constituents to use a screen reader or other device to allow for the document to be read. You can also send discs to people by means of the postal service or send the information electronically by means of email.

Ensure that any visible information provided, such as phone numbers, addresses, website URLs, etc., are also made audible by saying the information verbally as well. Describe images, charts and drawings. Speak slowly and clearly. (For example, “This pie chart shows that 75 percent....” or “This bar graph shows....”)

13 Braille Conversion

Provide printed documents in braille.

Braille Transcription Companies

The following companies provide braille transcription:

- Braille Texas  
  http://www.brailletexas.org;
• Three Bridges Interpreting Services in Braille  
  http://www.3bridgesaustin.com/
• National Federation of the Blind Transcription Resource List:  
  http://www.nfb.org/nfb/Braille_transcription.asp
• American Council for the Blind: Transcriber Services  
  http://www.acb.org/resources/transcribers.html

14 Visual Images
Pictures should be high quality, and not stretched or blurry. Pictures should match and reinforce the text. Avoid symbols with unclear meanings. All pictures should have a written description describing the image in an alternative tag (text description; ALT tag). Increase visibility for colorblind viewers.

Colorblindness affects a significant number of people, most often as an inability to distinguish between red and green, or seeing red and green differently. When creating presentations, it is important avoid using color alone to distinguish meaning. A common example is “All items marked in red are required.” Instead, indicate “All items marked with a star or ‘*’ are required. Symbols are more accurately understood by colorblind individuals than colored text.

For individuals with low vision choose a color pallet of elements that increase visual contrast between foreground and background colors. So viewers can more easily read and understand content. Some things you can do when developing your materials include:

• Use texture in graphs, instead of color, to highlight points of interest;
• Circle or use animation to highlight information, rather than relying on laser pointers or color;
• Keep the overall contrast in your material high; and
• Avoid image watermarks.

Images used as watermarks may not be understood by people with visual or cognitive disabilities. If you must use a watermark, make sure that the information it contains is also included elsewhere in your document.

15 Universal Language for Messaging
The following language may be considered for inclusion on agency and jurisdiction websites, documents, brochures, flyers, or any other pertinent documents:
“As a covered entity under Title II of the Americans with Disabilities Act, the [insert organization title here] does not discriminate on the basis of disability and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services and activities.”

For a meeting flyer, organizations should include the following paragraph:

“Please let us know your communication accommodation (for example, braille, CARTS service sign language interpreters, readers) or disability support needs by [date].”

“Please call xxx-xxx-xxxx using the relay option of your choice or email the conference or training point of contact at [include email address].”

16 Auxiliary Aids and Services

American Sign Language (ASL) Interpreting

Develop contracts with local ASL Interpreter organizations to support interpreting requests in support of:

- Meetings, Trainings and Public Events – Make sure that interpreters are briefed and provided written information prior to the meeting commencing. If the meeting is being videotaped, be sure the ASL interpreter is positioned next to the speaker, that their face and upper body are in the screen shot at all times and that the background is a solid color.

- Press conferences – Follow the ADA Guidance on Press Conferences and Interpreter Checklist. Ensure that the interpreters are briefed and provided written information, specifically names, areas impacted, prior to videotaping or going on air. Ensure that the interpreter is next to the podium and that their face and upper body are in the screen shot at all times and that the background is a solid color.

Communication Access Real Time Translation (CART)

Also known as “real-time captioning,” CART is a service that can be delivered on location or remotely. It is best described as the instant translation of the spoken word into English text using a stenotype machine, notebook computer and specialized steno translation software. The text produced by the CART provider can be displayed on a computer monitor, projected onto a
screen, combined with a video presentation to appear as captions, or otherwise made available using other transmission and display systems.

**Audio Conversion**

Recording program materials into an audio file or on cassette tape is a good alternative to providing written material. Some people who are blind or have visual disabilities cannot or prefer not to read Braille or large print, and find audio and/or tapes more useful.

Staff members can create audio formats within their organizations:

- Record in a room where there is no background noise;
- Read at a moderate pace and articulate words clearly; and
- Identify the reader at the end of the recording. (If using a cassette tape or CD, identify the side number, the document title, and the page range being read on each side.)

Computer documents provide an efficient, simple means of transferring print information to audible communication. Many individuals now have computers, tablets and phones with recording and voice output. By having an accessible computer document, the electronic process is often the fastest way to allow constituents to use a screen reader or other device which allows for the document to be read. You can also send discs to persons via post or send the information electronically via e-mail upon request.

**Telecommunication Relay Services (TRS)**

Telecommunications Relay Service (TRS), established under Title IV of the Americans with Disabilities Act, is a telephone service that allows persons with hearing or speech disabilities to place and receive telephone calls. TRS is available in all 50 states, the District of Columbia, Puerto Rico and the U.S. territories for local and/or long distance calls. TRS is regulated by the Federal Communications Commission.

TRS calls should be processed and responded to by agencies and jurisdictions as they would with any other telephone call.

The various relay services covered by Title IV of the ADA are explained below:

There are several forms of TRS\(^5\), depending on the particular needs of the user and the equipment available.

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1. **Text-to-Voice TTY-based TRS**—With this type of “traditional” TRS, a person with a hearing or speech disability uses a TTY to call the call attendant at the relay center. TTYs have a keyboard and allow people to type their telephone conversations. The text is read on a display screen and/or a paper printout. A TTY user calls a TRS relay center and types the number of the person he or she wishes to call. The CA at the relay center then makes a voice telephone call to the other party to the call, and relays the call back and forth between the parties by speaking what a text user types, and typing what a voice telephone user speaks.

2. **Voice Carry Over**—Voice Carry Over (VCO) is a type of TRS that allows a person with a hearing disability, but who wants to use his or her own voice, to speak directly to the called party and receive responses in text from the CA. No typing is required by the calling party. This service is particularly useful to senior citizens who have lost their hearing, but who can still speak.

3. **Hearing Carry Over**—Hearing Carry Over (HCO) is a type of TRS that allows a person with a speech disability, but who wants to use his/her own hearing, to listen to the called party and type his/her part of the conversation on a TTY. The CA reads these words to the called party, and the caller hears responses directly from the called party.

4. **Speech-to-Speech (STS) Relay Service**—This form of TRS is used by a person with a speech disability. A CA (who is specially trained in understanding a variety of speech disorders) repeats what the caller says in a manner that makes the caller's words clear and understandable to the called party. No special telephone is needed. For more information regarding STS, visit the [FCC Guide](#) to speech-to-speech relay.

5. **Shared Non-English Language Relay Services**—Due to the large number of Spanish speakers in the United States, the FCC requires interstate TRS providers to offer Spanish-to-Spanish traditional TRS. Although Spanish language relay is not required for intrastate (within a state) TRS, many states with large numbers of Spanish speakers offer this service on a voluntary basis. The FCC also allows TRS providers who voluntarily offer other shared non-English language interstate TRS, such as French-to-French, to be compensated from the federal TRS fund.

6. **Captioned Telephone Service**—Captioned telephone service, like VCO, is used by persons with a hearing disability but some residual hearing. It uses a special telephone that has a text screen to display
captions of what the other party to the conversation is saying. A captioned telephone allows the user, on one line, to speak to the called party and to simultaneously listen to the other party and read captions of what the other party is saying. There is a “two-line” version of captioned telephone service that offers additional features, such as call-waiting, *69, call forwarding, and direct dialing for 9-1-1 emergency service. Unlike traditional TRS (where the CA types what the called party says), the CA repeats or re-voices what the called party says. Speech recognition technology automatically transcribes the CA’s voice into text, which is then transmitted directly to the user’s captioned telephone text display.

7. **Video Relay Service (VRS)**—This Internet-based form of TRS allows persons whose primary language is American Sign Language (ASL) to communicate with the CA in ASL using video conferencing equipment. The CA speaks what is signed to the called party, and signs the called party’s response back to the caller. VRS is not required by the FCC, but is offered by several TRS providers. VRS allows conversations to flow in near real time and in a faster and more natural manner than text-based TRS. Since January 1, 2006, TRS providers that offer VRS have been required to provide it 24 hours a day, seven days a week, and must answer incoming calls within a specific period of time. For more information regarding VRS visit video relay services.

8. **Internet Protocol (IP) Relay Service**—IP Relay is a text-based form of TRS that uses the Internet rather than traditional telephone lines for the leg of the call between the person with a hearing or speech disability and the CA. Otherwise, the call is generally handled just like a TTY-based TRS call. The user may use a computer or other web-enabled device to communicate with the CA. IP Relay is not required by the FCC, but is offered by several TRS providers. For more information regarding IP Relay visit www.fcc.gov/guides/internet-protocol-ip-relay-service.

9. **IP Captioned Telephone Service**—IP captioned telephone service, one of the newest forms of TRS, combines elements of captioned telephone service and IP Relay. IP captioned telephone service can be provided in a variety of ways, but uses the Internet – rather than the telephone network – to provide the link and captions between the caller with a hearing disability and the CA. It allows the user to simultaneously both listen to, and read the text of, what the other party in a telephone conversation is saying. IP captioned telephone service can be used with an existing voice telephone and a computer or other Web-enabled device without requiring any specialized
equipment. For more information regarding IP captioned telephone service, visit Internet Protocol Captioned Telephone Service.
Relay Texas Services

Speech-to-speech

Persons with a speech disability can connect to a specially trained agent who can serve as the caller's "voice" and repeat his/her responses to the called party, if necessary. Someone wishing to call a person with a speech disability can also initiate a call to Speech-to-Speech (STS). Dial 1-877-826-6607.

Internet relay service

Computer users can reach relay services by simply connecting to an Internet relay service website; no special modem and software are needed. After connecting to the website of your choice, the user is given instructions regarding how to continue in order to complete a call.

Previously, hearing users were not able to make calls to IP users; however, with the advent of local ten digit number assignments (L10DN) to IP users, hearing callers can now initiate calls to IP users by dialing the individuals' L10DN.

Several Internet Relay providers are listed at the following links:

- Federal Relay Service: http://www.gsa.gov/portal/content/104626
- i711: http://www.i711.com/
- Purple Relay: http://www.purple.us/
- Sprint IP Relay: http://www.sprintip.com/

For more information and links to participating providers, please visit http://www.tdi-online.org/tdi/fs_relayservices.asp and Relay Texas.

Video relay service (VRS)

Video Relay Service (VRS) is a type of Telecommunications Relay Service (TRS) that allows individuals with hearing or speech loss who use sign language to communicate to use video conference equipment (web cameras or video phone products), to speak to individuals using a standard telephone.

The VRS call proceeds in the following manner:

1. The VRS user connects to a Video Interpreter (VI - an interpreter who works for a VRS provider). The user and the VI can see each other on video conference equipment giving them the ability to sign to each other;
2. The VRS user gives the VI a phone number of a hearing person;
3. The VI places a telephone call to the hearing party;
4. The VI talks to the called hearing party informing them that a person with hearing or speech impairment has initiated the call. The VI also provides the called hearing person with a brief description of call procedures if the called party is unfamiliar with VRS telephone calls; 
5. The VI relays the conversation back and forth between the parties, thereby providing a telephone interpreting service between a hearing impaired user and the hearing party.

A standard telephone user can also initiate a VRS call by calling a VRS center, usually through a toll-free number, by dialing the VRS user's local 10 digit number. VRS is very popular with individuals who use sign language because the conversation between the VRS user and the VI flows much more quickly than with a text-based TRS call. Unlike text-based relay services, a VI is able to express the mood of both parties; interpreting the mood of a hearing person in sign language, and voicing the mood of a signing person. Consequently, VRS is much more like a normal telephone conversation where the emotions of each party are readily identified by inflections of the voice, etc.

The VRS VI can be reached through the VRS provider's Internet site (web camera and computer), or through video equipment attached to a television. (See the list below.) Like all TRS calls, VRS is free to the caller. VRS providers are compensated for their costs from the Interstate TRS Fund, which the Federal Communications Commission (FCC) oversees.

Here is the list of VRS providers:
- Communication Axess Ability Group: http://www.caag4.com
- Convo Relay: http://www.convorelay.com
- Gracias VRS: http://www.graciavrs.com
- Purple Relay: http://www.purple.us/
- SNAP VRS: http://www.snapvrs.com
- Sorensen VRS: http://www.sorensonvrs.com
- ZVRS: http://www.zvrs.com/

Information about VRS
- FCC Consumer Facts
- NECA TRS Fund
- Video Relay Services Consumer Association

Video Relay Services Consumer Association

TTY (text telephone)

A person who is deaf, hard-of-hearing or speech-disabled uses a TTY to type conversations to a relay agent who then reads the typed conversation to a
hearing person. The relay agent transmits the hearing person's spoken words by typing them back to the TTY user.

TTY users have two options:

1. Dial the Relay Texas number—711. TTY users will see the flickering on their equipment and need to wait a few seconds. When the Relay Agent answers "RTX XXX (F OR M) NBR PLS GA" (NBR=number, PLS=please, GA=go ahead), you type the area code and number you wish to call and type "GA" (go ahead). The relay agent will then call the number and process the call.
2. Dial the Relay Texas TTY number—1-800-RELAY TX (735-2989). The Relay Agent will answer with same message as above.

**Note:** Calling 1-800-735-2989 will process the call faster as it does not have the interactive voice message as used in 711. On the other hand, 711 is easier to remember.

**Voice users**

Standard telephone users can easily call a hearing or speech-disabled person through Relay Texas. The procedure for using Relay Texas is as follows:

1. Dial Relay Texas 711;
2. A voice message will say: "You have reached Relay Texas. Press #1 to place a relay call;"
3. After you press #1, the relay agent will come on the line. When the relay agent answers, give him or her the area code and phone number of the person you want to call;
4. The relay agent will voice to you what the other person is typing and will type to the other person everything that you say.
5. Be sure to talk directly to the person you are calling and avoid saying "tell him or her." Also, make sure you say GA (go ahead) when it is the other person's turn to talk.

**ASCII (American Standard Code for Information Interchange)**

Some people use their computers to talk on the phone instead of using a TTY. This requires a modem and special software. Computer users should call 1-800-RELAY X1 (735-2991). Set your communication software to the following protocols at speeds ranging from 300 to 2400 baud: 8 Bits No Parity 1 Stop Bit Full Duplex. When calling at a rate of 300 baud or below, follow the above setting, using Half Duplex. (Note: It may be helpful to set your "time out" to 100 seconds.)

**Hearing carry-over**
Hearing Carry-Over (HCO) allows a person with a speech disability who can hear to type their part of the conversation for the relay agent to read to the standard telephone user. Use the following procedure when using HCO:

1. Dial the Relay Texas TTY number at 1-800-RELAY TX (735-2989).
2. After the relay agent answers, type "Hearing Carry-Over PLEASE GA"
3. The relay agent will make the connections and voice what you type to the other party. After you type "GA", pick up the handset and listen to the spoken reply.

**Spanish speaking users**

Callers needing a Spanish speaking agent can dial 7-1-1 and request one or directly dial the Spanish relay number at 1-800-662-4954.
For more detailed information about these types of Relay Texas calls, go to [Relay Texas Features](#).

**Deafblind callers**

Dial 1-877-826-9348 to use the reduced typing speed feature. During these calls the message will come across the users TTY or braille TTY at the rate of 15 words per minute. The user can increase or decrease the rate in increments of 5 words per minute.

**Text-Based Relay**

**TTY (text telephone)**

Some people who are deaf, hard of hearing or speech-disabled may use a TTY. For example, a hard of hearing caller types their conversation to a relay agent who then reads the typed conversation to a hearing person. The relay agent transmits the hearing person's spoken words by typing them back to the TTY user.

**Voice Users for Texas Relay**

Standard telephone users can easily call a person who uses a TTY through Relay Texas. Follow the procedure below to call a person who uses this telephone technology:

1. Dial Relay Texas at 711 or 1-800 - RELAY TX (735-2989).
2. A voice message will say: "You have reached Relay Texas. Press #1 to place a relay call." After pressing #1 the relay agent will come on the line. When the relay agent answers, give him/her the area code and phone number of the person you want to call.
3. The relay agent will voice to you what the other person is typing, and will type to the other person everything that you say.
4. Be sure to talk directly to the person you are calling and avoid saying "tell him or her." Also, make sure you say GA (go ahead) when it is the other person’s turn to talk.

**Internet relay service**

Computer users can reach relay services by simply connecting to an Internet relay service website of their choice. Although no special modem or software is needed, Java must be enabled to use this service. After connecting to the website of your choice, the user is given instructions regarding how to continue in order to complete a call. Hearing callers can initiate calls to IP users by simply dialing the individuals' local ten digit number.

For Internet Relay providers, visit the following websites:

- Federal Relay Service: [http://www.gsa.gov/portal/content/104626](http://www.gsa.gov/portal/content/104626)
- i711: [http://www.i711.com/](http://www.i711.com/)
- Purple Relay: [http://www.purple.us/](http://www.purple.us/)

For more information on how relay works, please visit: [http://www.puc.state.tx.us/relaytexas/relay/InternetVideo.aspx](http://www.puc.state.tx.us/relaytexas/relay/InternetVideo.aspx)

**VCO (voice carry over)**

*Voice Carry-Over (VCO)* is an option for people who cannot hear but can use their own voice during a call. Using VCO and a specially designed telephone with a text screen, a VCO user can speak directly to the other person. As the other person speaks, the Relay Agent types back the words that are being said.

Voice Carry-Over users call 1-TRS-VCO-1RTX (877-826-1789)

**Spanish speaking users**

Callers needing a Spanish speaking agent can dial 7-1-1 and request one or directly dial the Spanish relay number at 1-800-662-4954. For more detailed information about these types of Relay Texas calls, go to [Relay Texas Features](http://www.puc.state.tx.us/relaytexas/relay/InternetVideo.aspx).
17  Tips for Interacting with People with Disabilities, and Functional and Access Needs During a Disaster

The following guidance is not meant to be an exhaustive list but a general guide for first responders. As a reminder always asks the person how you can best be of assistance.

General Etiquette

The following guidelines are appropriate when meeting and communicating with people who have disabilities:

• Etiquette considered appropriate when interacting with people with disabilities is based primarily on respect and courtesy.
• When introduced to a person with a disability, it is appropriate to offer to shake hands. People with limited hand use or who wear an artificial limb can usually shake hands. (Shaking hands with the left hand is an acceptable greeting).
• If you offer assistance, wait until the offer is accepted, then listen to or ask for instructions.
• Treat adults as adults. Address people who have disabilities by their first names only when extending the same familiarity to all others.
• Relax. Do not be embarrassed if you happen to use common expressions such as "See you later," or "Did you hear about that?" that seem to relate to a person's disability.
• Do not be afraid to ask questions when you are unsure of what to do.

The following resources are for first responders who help people with disabilities:

Texas A&M University Mobile TIPS for First Responders

Source References:


Also see the National Organization on Disability’s Emergency Preparedness Initiative.
Seniors

Helping elderly and aged people during emergencies requires more staff with knowledge about disabilities than with other general populations, as this population is more likely than others to have disabilities. The information below will help you to be of use to elderly and aged people during an emergency.

- Some people may respond slowly to a crisis and may not fully understand the extent of the emergency. Repeat questions and answers if necessary. Be patient. Taking time to listen carefully or to explain again may take less time than dealing with a confused person who may not be willing to cooperate.
- Reassure the person that he or she will receive medical assistance without fear of being placed in a nursing home.
- Older people may fear being removed from their homes; be sympathetic and understanding and explain that this is temporary.
- Before moving a person, assess his or her ability to see and hear; adapt rescue techniques for sensory impairments.
- Persons with a hearing loss may appear disoriented and confused when all that is really wrong is that they cannot hear you. Determine if the person has a hearing aid. If they do, is it available and working? If it isn’t, can you get a new battery to make it work?
- If the person has a vision loss, identify yourself and explain why you are there. Let the person hold your arm and then guide him or her to safety.
- If possible, gather all medications before evacuating. Ask the people what medications they are taking and where their medications are stored. Most people keep all their medications in one location in their homes.
- If the person has dementia, turn off emergency lights and sirens if possible. Identify yourself and explain why you are there. Speak slowly, using short words in a calming voice. Ask yes or no questions: repeat them if necessary. Maintain eye contact.
People Who Use a Service Animal

Some people with disabilities use service animals for guidance, informational, and mobility purposes. The following information will help emergency staff members understand how to interact with service animals.

- Service animals are dogs or miniature horses that assist people with disabilities. While one common example are guide dogs that assist people who are blind, there are many types of service dogs trained to assist people with a disability. (2010: New Guidance for Service Animals) (http://www.ada.gov/regs2010/factsheets/title2_factsheet.html)
- A service animal is not a pet. Service animals are allowed to go anywhere a person could go, including food preparation and medical areas.
- Do not touch or give the animal food or treats without the permission of the owner.
- When an animal is wearing its harness, it is considered working and on duty. In the event you are asked to take the animal while assisting the individual, hold the leash and not the harness.
- Plan to evacuate the animal with the owner. Do not separate them.
- Service animals are not required to be registered and there is no proof required that the animal is a service animal. If the person tells you it is a service animal, treat it as such. However, if the animal presents a health and safety issue to the individual or others, you do have the flexibility to remove it from the site. Remember though, that in disasters, animals are also nervous and anxious; take all considerations into your decision before removing a service animal from its owner. (For example, if a person steps on a dog’s tail while on a crowded bus with lots of people in panic, and the dog reacts, that may be considered a normal reaction.)
- A person is not required to give you proof of a disability that requires a service animal. If you have doubts, wait until you arrive at your destination and address the issue with the supervisors in charge.
- A service animal must be in a harness or on a leash, but need not be muzzled.
People Who Have Mobility Impairments

Use the following guidelines when helping people who have mobility impairments:

- Always ask the person how you can help before attempting any assistance. Every person and every disability is unique. Even though it may be important to evacuate the location where the person is, respect their independence to the safest extent possible. Don’t make assumptions about the persons’ abilities.
- Ask if they have limitations or problems that may affect their safety.
- Some people may need assistance getting out of bed or out of a chair, but can then proceed without assistance. Ask before acting.
- Under new guidance, a Segway Personal Transport is recognized to be a mobility device for some individuals.

Other Questions You May Find Helpful

- Are you able to stand or walk without the help of a mobility device like a cane, walker, or a wheelchair?
- You might have to [stand] [walk] for quite a while on your own. Will this be ok? Please be sure and tell someone if you think you need assistance.
- Do you have full use of your arms?

People Who Use Crutches, Canes or Other Mobility Devices

When a person walks with an assistive device, you can help by using the following guidelines:

- A person using a mobility device may be able to negotiate stairs independently. One hand is used to grasp the handrail while the other hand is used for the crutch or cane.
- Do not interfere with the persons’ movement unless asked to do so, or the nature of the emergency is such that absolute speed is the primary concern. If this is the case, tell the person what you’ll need to do and why. Offer assistance if needed.
- If the stairs are crowded, assist by helping to create space for the individual to traverse.

Evacuating People Who Use a Wheelchair

When helping a person who uses a wheelchair, use the following guidelines:

- If the conversation will take more than a few minutes, sit down to speak at eye level.
- People who use a wheelchair are familiar with special techniques to transfer from one chair to another. Depending on their upper body strength, they may be able to do much of the work themselves.
- Ask before you assume you need to help, or what that help should be.
People Who Have a Mental Illness

You may not be able to tell if a person has a mental illness until you have begun the evacuation procedure. The following guidelines will help you to be an effective responder:

- In an emergency, the person may become confused. Speak slowly and in a normal speaking tone.
- Ask the person’s name and address him or her by name throughout the emergency response.
- If the person becomes agitated, help him or her find a quiet corner away from the confusion.
- Keep your communication simple, clear and brief.
- If a person is confused, don’t give multiple commands; ask or state one thing at a time.
- Be empathetic. Show that you have heard the person and care about what he or she has told you.
- Be reassuring.
- If the person is delusional, don’t argue with him or her or try to talk the person out of it. Just let the person know you are there to help him or her.
- Ask if there is any medication they should take with them.
- Try to avoid interrupting a person who might be disoriented or rambling. Let him or her know that you both have to evacuate the area quickly.
- Don’t talk down to the person, yell, or shout, which can escalate delusional behavior.
- Have a forward leaning body position which shows interest and concern. Use open palms and avoid balling your hand into a fist.
People Who Are Blind or Have Low Vision

The following guidelines will help you be an effective responder when helping people with blindness or low vision:

- There is a difference between low vision and blindness. Some people who are legally blind have some sight, while others are totally blind.
- Announce your presence, speak out, and then enter the area.
- Speak naturally and directly to the individual.
- Do not shout.
- Don’t be afraid to use words like see, look, or blind.
- State the nature of the emergency and offer them your arm. As you walk, advise the individual of any obstacles.
- Advise the person when you are about to turn left or right, and when you are about to ascend or descend stairs.
- Offer assistance but let the person explain what help is needed.
- Do not grab or attempt to guide a person without first asking.
- Let the person grasp your arm or shoulder lightly for guidance.
- A person may choose to walk slightly behind you to gauge your body’s reactions to obstacles.
- Be sure to mention stairs, doorways, narrow passages, ramps, etc.
- When guiding someone to a seat, place the person’s hand on the back of the chair.
- If leading several individuals with visual impairments, ask them to guide the person behind them.
- Remember that you’ll need to communicate any written information orally.
- When you have reached safety, orient the person to the location and ask if any further assistance is needed.
- If the person has a service animal, don’t pet it unless the person gives you permission to do so. Service animals must be evacuated with the person. Refer to the section above on ‘People who use a Service Animal.’
People Who Are Deaf or Hard of Hearing

There is a difference between people who are hard of hearing and those who are deaf. The effects of hearing loss vary depending on the level of severity and time of onset. Likewise, the methods for communication vary as well. Some people are completely deaf and rely on various forms of visual communication, while others can hear very well with hearing aids. Hearing aids do not guarantee that the person can hear and understand speech. Hearing aids increase volume, not clarity. Many individuals with hearing loss can speak even though they cannot hear. Effective communication can best be determined by asking the individual which communication methods work for him or her.

For many people who are deaf and communicate mostly using sign language, interpreters are appropriate. For individuals who are hard of hearing and do not sign, some common communication methods include amplification (hearing aids and/or personal FM systems) and written text (Relay, captions, Computer Assisted Real-time Transcription (CART), etc.).

Coordinate with local stakeholder groups to identify accessible communication support needs and capabilities in your community. Consider developing a local CERT Team which includes members who are deaf, hard of hearing and late-deafened to help with planning and communications in shelters during a disaster.

General tips for communicating with people who are deaf or hard of hearing:

The following tips will allow a person with hearing loss to effectively use what hearing they have (if any) and use visual cues to receive as much information as possible. Some people with hearing loss have difficulty knowing where a sound is coming from. Others hear sounds, but may not be able to recognize the words that were spoken. All of these tips are easy to do, but may require a conscious effort at first.

- Choose a quiet environment, when possible.
- Avoid standing in front of a light source. Make sure the light is shining on your face, not behind you.
- Make sure you have the person’s attention before speaking. Waving a hand, or a gentle touch on the shoulder or arm, is an acceptable way to get attention.
- Stand a normal distance from the person.
- Do not cover your mouth when you are speaking. This includes covering your mouth with a hand or a long mustache.
• Do not have anything in your mouth when you are speaking.
• Look directly at the person you are speaking to and maintain eye contact.
• Ask the person what will make communication easier.
• State the topic of discussion as you begin. When you change the topic, make sure the listener is aware of the new topic.
• Speak clearly, at a normal pace. If you tend to speak quickly, slow down. Do not overly exaggerate or slow your speech at first. If the person has difficulty understanding, slow your speech more, break the sentences into smaller portions, and check for understanding again.
• Use open-ended questions to check for understanding.
• Repeat the statement, then re-phrase if the person is unable to hear the words spoken.
• Use shorter, simpler sentences if necessary.
• Do not shout. A loud voice may increase distortion or give the impression you are angry, without improving comprehension.
• Use gesture, facial expression and body language to assist with communication.
• Be patient and take time to communicate. Saying “never mind” or “it’s not important,” causes the person with hearing loss to feel they are not important. Be aware of fatigue. People who are deaf, hard of hearing, or deaf-blind must work harder to communicate, and this can be extremely tiring.

**Communicating with people who have a hearing loss (and do not use sign language)**

• Remember that hearing loss does not equate with loss of intelligence.
• Try writing down a couple words or a phrase to clarify if communication is difficult. Keep sentences simple.
• Remember that just because a person can hear your voice, does not mean they can understand your words. Hearing loss may cause distortion in the way sounds are perceived.
• Speak naturally and with normal expression.
• Quiet places will assist communication. Be aware of office machines, fans, restaurant noise, and other people’s conversations.
• Look directly at the person. Avoid filling out forms or reading while talking.
• In groups, make sure only one person at a time is talking. Whoever speaks should be sure to have the attention of the person with hearing loss.
• Do not assume that a person with a hearing loss is able to understand casual conversation taking place in the room.
• For a person who is late deafened and who does not sign, a computer or other electronic device can be a useful communication tool. Enlarge
the font so it is easy to read. Let the individual speak, and if they don’t understand your speech, type and allow the person to read the computer screen.

Communicating with people who are deaf (and use sign language)

- Do not shout. If a person is deaf, your voice will not be heard clearly, no matter how loud.
- Offer pencil and paper. When writing back and forth, keep word choices simple, sentences short, and use present tense. If the person understands you well and uses more complex sentence and vocabulary, you may do the same. Take your cue from the individual.
- When using an interpreter, maintain eye contact with and speak directly to the person who is deaf.
- Use pantomime, body language, facial expression. Patience and kindness will also aid communication.
- Don’t be afraid to make mistakes. Most people who are deaf are very comfortable communicating with those who are hearing. Most will appreciate any attempt to communicate, even if you use the wrong sign.

Effective Communication Onsite

Work with your local population of individuals with hearing loss and consider the tools and techniques below:

Written communication
- Not all individuals will be able to read English well enough to understand written instructions.
- Keep instructions simple, in the present tense and use basic vocabulary.
- Print in clear format.

High tech communication tools
- Use hand held mobile devices to text back and forth.
- Deliver general announcements via text blast or email.
- Share a computer to facilitate written communication. (Use large font for citizens who have visual impairments)
- Use communication tools that individuals may bring with them.
- Establish video remote interpreting (VRI) services which may be used to provide effective visual communication (for those who use sign language). Although, the best practice routinely is for on-site qualified interpreters, in times of disasters the whole community is involved in rearranging their lives and remote interpreter services may be the best
(and sometimes the only) option for acquiring qualified interpreter services.

**Low tech communication tools**
- Use pen and paper to clearly and legibly print information.
- White boards with large font to carry through the shelter area with announcement information.
- Print general instructions in large font and in braille. Have common materials (brochures, flyers, forms, announcements, etc.) prepared in advance, when possible.
- Record announcements or information on tapes or other data and provide access to mediums to listen to the materials.

**Sign language interpreters**
Sign language interpreters are often the most effective communication method for people who are deaf and use sign language. A list of Texas certified sign language interpreters can be found at: [http://www.dars.state.tx.us/dhhs/list.shtml](http://www.dars.state.tx.us/dhhs/list.shtml)

**Local Resource Specialists**
The [Texas Department of Assistive and Rehabilitative Services (DARS) Resource Specialists program](http://www.dars.state.tx.us/dhhs/list.shtml) reaches out statewide to provide specialized services to individuals who are deaf or hard of hearing. It also assists agencies and other service providers to serve these consumers. Resource Specialists are a preparedness resource that can assist in identifying local providers to support the needs of this population.

**Deafness and Hearing Loss Resource Specialists**
Deafness and hearing loss specialists are the best resources for getting help with hearing loss, because they

- have the knowledge and communication ability to work with persons who are deaf, hard of hearing, and late-deafened,
- can assist local emergency management preparedness efforts by locating local deafness and hearing loss stakeholder groups and local vendors and agencies that provide resources to communicate with and support individuals with hearing loss, and
- provide services related to sensitivity training, communication strategies, and assistive technology.
For contact information for your local specialist, go to
http://www.dars.state.tx.us/dhhs/providers/specialists.asp
People Who Are Deafblind

People with combined hearing and vision loss may be deafblind, deaf with low vision, or hard of hearing with any kind of vision loss. Let the deafblind person know you are there by simple touch on the shoulder or arm. Use the following guidelines to create a respectful and helpful interaction:

- Avoid bright, glaring, and loud environments;
- Identify yourself;
- Communicate directly with the person, even when using an interpreter;
- Do not assume the deafblind person knows where they are or what is going on. Share as much information as possible;
- Always tell the person when you are leaving, even if it is for a brief period of time. Leave them as comfortable and safe as possible. It is good to offer them a chair, table, or wall for an anchor;
- When guiding a person who is deafblind, never place him or her ahead of you. Allow the person to hold your arm above the elbow. It is rarely necessary to “help” the deafblind person sit down or climb stairs; placing their hand on a chair or banister and telling the person that you are approaching an up or down staircase will give the person the information that he or she needs.

Communication

People who are deafblind sometimes have usable speech, vision and/or hearing. Determine if the individual can effectively communicate via speech, American Sign Language (ASL), finger spelling, writing with a dark pen, computer or assistive device communication, or print-on-palm.

If a person who is deafblind indicates that they are in need of Sign Language assistance for effective communication, attempt to determine which sign language modes used by people who are deafblind provide for their needs. (For information about this, go to Deafblind Interpreting Guidelines, e-Michigan Deaf and Hard of Hearing.) Note that not all ASL interpreters are capable of providing this specialized service. Coordinate with Interpreter providers to ensure that Interpreters with the appropriate skills are requested:

**Visual Frame (Box Signing):** Signs are made within a more confined space or “box,” the size of which is individual to the client; interpreters’ distance from client also depends upon the client’s individual preference. Using this technique allows a client with a limited visual field to see the signs and the interpreter’s facial expressions and mouth movements simultaneously.
**Close Vision:** Same as above, but with interpreter directly in front of client, within very close proximity. This is used when the client(s) have reduced visual acuity, as well as a peripheral field loss.

**Tracking:** Client holds wrist(s) of interpreter to keep signs within the client’s field of vision and to gain information from interpreter’s movements. This technique is meant to reduce the client’s visual fatigue by helping them to keep track of where the interpreter’s hands are in space.

**Tactile Signing:** In this technique the client places her/his hands over the hands of the interpreter, in order to read signs through touch and movement. Tactile signing can be taxing for interpreters, and may require more frequent interpreter switches or breaks. The interpreter should supply both auditory and visual information to the client. It is important to determine a seating arrangement that is comfortable to both the client and the interpreter. Tactile signing is used by client’s who have very limited vision and by those who are blind.

**Tactile Finger:** spelling (DeafBlind Alphabet). The two-hand manual alphabet (that is, the one used in British Sign Language) is adapted to fingerspell letters onto the palm of the client’s hand. Most people who are deafblind in the United States use the standard American Manual Alphabet, however, interpreters may encounter clients who know and prefer the DeafBlind alphabet.

**Short-cut Signs:** Key signs that can be signed onto palm of client’s hand are used as a supplement to tactile finger spelling; generally used in English word order.

**The sign language alphabet:** Can be used to spell a word visually or tactually. To “fingerspell” to an individual who is unable to see your letters, you can sign the letters into the palm of the person’s hand.

**In an emergency:** If an emergency situation happens and you must notify a deafblind person quickly, draw "X" on deafblind person's back with your finger and lead them by the arm. "X on the back" is a universal deafblind sign for an emergency. (If their back is not available, draw X in their palm.)

**Note:** This is used in the culturally deafblind community. Persons who have vision and hearing loss but are not a member of that community will not understand this cue. You may, however, establish this as a quick emergency cue with them.

**Texas Department of Assistive and Rehabilitative Services (DARS) Resource Specialists**
Deafblind specialists functionally evaluate the overall situation of a person who is deafblind. They evaluate educational needs and support/resources, existing support systems, support and training needs in relation to independent living and employment specialists help locate resources and make recommendations to agencies and organizations that are involved or requested to serve individuals. Deafblind Specialists can assist local emergency management preparedness effort by locating local hearing loss stakeholder groups and local vendors/ agencies that can provide resources to communicate with and support the individuals who are deafblind. For contact information at the Department of Assistive and Rehabilitative Services, go to *Deafblind Services*. Deafblind Specialist for Austin, Tyler, Waco Central and Northeast areas: 512-377-0573

Deafblind Specialist for El Paso, Harlingen, San Antonio West and Southwest areas: 512-377-0572

Deafblind Specialist for Corpus, Houston Gulf Coast/ Southeast areas: 512-377-0575

Deafblind Specialist for Dallas and Fort Worth, Lubbock, Amarillo Panhandle and Northwest: 214-378-2645

Contact the Statewide Division for Blind Services at 1-800-628-5115. To contact the Deafblind Services Unit directly email deafblindservices@dars.state.tx.us or call (512) 377-0566 (Voice/TTY) and (512) 410-1524 (VP).
Forms of Face-to-Face Communication with People Who Have Disabilities

People Who Have a **Cognitive** or **Intellectual Disability**
The following guidelines and tips will help you to help people with cognitive or intellectual disabilities:

- Some people may be distracted with a lot of activity and noise around them.
- Be prepared to repeat what you say, orally or in writing.
- Offer assistance and instructions and allow extra time for decision making.
- Be patient, flexible and supportive. Take time to understand the individual and make sure the individual understands you.

**Say:**

- My name is ___. I am here to help you, not hurt you.
- I am a ____ (name your job).
- I am here because (explain the situation).
- I look different than my picture on my badge because ____ (for example, if you are wearing protective equipment).

**Show:**

- Your picture identification badge (as you say the above).
- That you are calm and competent.

**Give:**

- Extra time for the person to process what you are saying and to respond.
- Respect for the dignity of the person as an equal and as an adult (example: speak directly to the person).
- An arm to the person to hold as they walk. If needed, offer your elbow for balance.
- If possible, quiet time to rest (as possible, to lower stress/fatigue).

**Use:**

- Short sentences.
- Simple, concrete words.
- Accurate, honest information.
- Pictures and objects to illustrate your words. Point to your ID picture as you say who you are, point to any protective equipment as you speak about it.

**Predict:**

- What will happen (simply and concretely)?
• When events will happen (tie to common events in addition to numbers and time, for example, “By lunch time ___By the time the sun goes down____.”
• How long this will last when things will return to normal (if you know).
• When the person can contact/rejoin loved ones (for example: calls to family, re-uniting pets).

Ask and Look for:
• An identification bracelet with special health information.
• Essential durable equipment and supplies (for example, wheelchair, walker, oxygen, batteries, communication devices [head pointers, alphabet boards, speech synthesizers, etc.]).
• Medication.
• Mobility aids (for example, assistance or service animal).
• Special health instructions (for example, allergies).
• Special communication information (For example, is the person using sign language?)
• Contact information.
• Signs of stress and/or confusion. (For example, the person might say she or he is stressed, look confused, withdraw, or start rubbing their hands together.)
• Conditions that people might misinterpret. (For example, someone might mistake a person with Cerebral Palsy or low blood sugar for a person with diabetes for drunkenness.)

Repeat:
• Reassurances (for example, you may feel afraid. That’s all right. We’re safe now.)
• Encouragement (for example, Thanks for moving fast. You are doing great. Other people can look at you and know what to do).
• Frequent updates on what’s happening and what will happen next. Refer to what you predicted will happen, for example: “Just like I said before, we’re getting into my car now.”

Reduce:
• Distractions. For example: lower volume of radio, use flashing lights on vehicle only when necessary.

Explain:
• Any written material (including signs) in everyday words.
• Public address system announcements in simple words.

Share:
• The information you’ve learned about the person with other workers who’ll be assisting the person.
People Who Have a **Speech Impairment**
Use the following guidelines when you are helping someone with speech impairment:

- If you do not understand something the individual says, do not pretend that you do. Ask the individual to repeat what he or she said and then repeat it back.
- Be patient. Take as much time as necessary.
- Try to ask questions that require only short answers or a nod of the head.
- Concentrate on what the individual is saying.
- Do not speak for the individual or attempt to finish her or his sentences.
People Who Have Autism
Use the following guidelines when you are helping someone who has autism:

- The person with autism may or may not be able to communicate with words. The individual should be approached gently and spoken to softly as high levels of sensory input may cause agitation.
- Understand that a person with autism may become stressed when their regular routine is disrupted.
- Unless absolutely necessary, don’t touch someone with autism without the person’s permission. Many people with autism are very sensitive to touch and simple touch can be painful.
- Understand that rocking, repetitive motion, and repeating words or phrases can be comforting to a person with autism during an emergency.
- Avoid loud noises, bright lights, and high levels of activity whenever possible.
- Don’t assume that a person does not understand if they are not using words.
Visual Communication

Talk boards
These are some examples of the types of talk boards found in Red Cross Shelter Kits.
Pictograms

The following are example pictograms for No Parking in three languages. Double click any of them to see more examples signs that language.
Signage

The following is an example of signage for public health screening, show in English and Spanish. Double click it to see more examples.

Public Health Screening

Exámenes de salud pública
Basic Emergency Sign Language and Deafblind Guideline

Double click the following for an image of basic emergency sign language gesture and a poster of emergency guidelines for interacting with people who are deafblind.
Deafblind Specialist Service Areas
Department of Assistive and Rehabilitative Services, Division for Blind Services
Deafblind Specialist Service Areas, Specialists:

**North/West quadrant of Texas:**
CC Davis – Dallas, Fort Worth, Lubbock
c.c.davis@dars.state.tx.us 214-378-2645

**North/East quadrant of Texas:**
Angie Hall – Austin, Tyler, Waco
angelic.hall@dars.state.tx.us 512-377-0573

**South/East quadrant of Texas:**
Jackie Souhrada – Corpus, Houston, Southeast
jackie.souhrada@dars.state.tx.us 512-377-0575

**South/West quadrant of Texas:**
Susan Starnes – El Paso, Harlingen, San Antonio
susan.starnes@dars.state.tx.us 512-377-0572

**Supervisor: Rachel Simpson**
rachel.simpson@dars.state.tx.us 512-377-0566
Texas Video Remote Interpreter (VRI) Services

Video Remote Interpreter Services (VRI) is an interpreting service that uses video conference technology over dedicated lines or wireless technology offering a high-speed, wide-bandwidth video connection that delivers high-quality video images. To ensure that VRI is effective, performance standards have been established and training is required for users of the technology.

Video signing services are relatively new; not all consumers have acquired the ability to use it as well as others and some may have never experienced the service. For new users, it may take some time for them to become accustomed to seeing a small version of a real live interpreter by their side. Work with them and explain due to the circumstances, VRI is allowing you the ability to more easily communicate with them about their needs.

VRI Service Providers

For information about and contact with VRI Service Providers, go to the links given below:

- **Access America**
- **Birnbaum Interpreting Services** (BIS)
- Communication Axess Ability Group (CAAG) – Houston, TX - [http://www.caag4.com/services.htm](http://www.caag4.com/services.htm)
- **Communication Service for the Deaf, Inc.** (CSD) – Austin, TX
- Deaf Action Center – Shreveport, LA – [www.deafactioncenter.org](http://www.deafactioncenter.org)
- Deaf Communication by Innovation (DCI) - [http://www.deafcomm.net/vri.htm](http://www.deafcomm.net/vri.htm)
- **Deaf Services Unlimited**
- **Fluent Language Solutions** (also known as Interpreters, Inc.)
- Interp-via-video - [http://www.video-remote-interpreting.com](http://www.video-remote-interpreting.com)
- **Interpretek**
- Interpretype – [www.interpretype.com](http://www.interpretype.com)
- **LifeLinks** (for hospitals)
- **MEJ Personal Business Services**
- **Mid-Atlantic Interpreting Group**
- **Network Interpreting Service** (NIS)
- NexTalk - [http://www.youtube.com/watch?v=U0bjx01GEAM](http://www.youtube.com/watch?v=U0bjx01GEAM), [http://www.nextalk.com](http://www.nextalk.com)
Minimum VRI Hardware and Software Specifications

What follows are the VRI hardware and software specifications you will need:

- H.323 compliant video conferencing device
- Or
- Desktop or Laptop computer and web-cam with Converged Management Application CMA Desktop Software Installed.

You should have one of the following operating systems installed on your computer:

- Windows XP, XP-Pro SP2 or greater (1GB RAM)
- Windows Vista, all versions (2GB RAM)
- Windows 7, all versions (2GB RAM)
- Mac OSX
  - Basic: 1.5 GHz P4, 1.2 GHz Pentium M/AMD Turion or higher
  - Standard: 2.0 GHz P4, Pentium M/AMD Turion 1.4 GHz
  - Premium: 3.2 GHz Pentium, Pentium M/AMD Turion 2.0 GHz
- Storage: 30MB
- Video RAM: at least 256MB
- Web-cams: MS Lifecam or LiveCam, Logitech Pro 9000 or Quickcam for Notebooks
Are state and local governments required to provide effective communication during disasters?

Under Title II of the Americans with Disabilities Act (ADA), all state and local governments are required to take steps to ensure that their communications with people with disabilities are as effective as communications with others. This requirement is referred to as “effective communication” and it is required except where a state or local government can show that providing effective communication would fundamentally alter the nature of the service or program in question or would result in an undue financial and administrative burden.

Local emergency management professionals should visit with their local television stations and disability and functional stakeholder groups in non-disaster times to discuss the stations requirements under the Federal Communications Commission Guide to emergency communications.

What does it mean for communication to be “effective”?

Simply put, “effective communication” means that people with disabilities must be given information comparable in content and detail to that given to the general public, as well as accessible, understandable, and timely.

How do I provide effective communication during a disaster?

During an active disaster or emergency communication with the public is important. There are two avenues for effective communication.

Live Press Conferences

State and local governments are required under Title II of the ADA to provide equal and effective communication to everyone. The best way to do this is to provide for a sign language interpreter at the press conference. Because many people who are deaf will be watching the press conference on television or a live stream on the internet, keeping the sign language interpreter in the camera frame provides the citizen who is deaf the same communication as a hearing citizen.
**Television or Streaming Internet**

Broadcasters and cable operators have requirements under the Federal Communications Commission to provide emergency information that is audible and visual. This means open captioning of what is being said in real time.

**What are the requirements for broadcasters and cable operators during disaster?**

Federal Communications Commission rules require broadcasters and cable operators to make local emergency information accessible to persons who are deaf or hard of hearing, and to persons who are blind or have visual disabilities. This rule means that emergency information must be provided both aurally (audible) and in a visual format.

**What qualifies as emergency information?**

Emergency information is information that is intended to further the protection of life, health, safety or property. Examples include, but are not limited to, the following:

- immediate weather situations: tornadoes, hurricanes, floods, tidal waves, earthquakes, icing conditions, heavy snows, widespread fires, warnings and watches of impending weather changes
- community situations: discharge of toxic gases, widespread power failures, industrial explosions, civil disorders, school closings and changes in school bus schedules resulting from such conditions

**How should emergency information be made accessible for television?**

In the case of persons who are deaf or hard of hearing, emergency information that is provided in the audio portion of programming must be provided either using closed captioning or other methods of visual presentation, such as open captioning, crawls or scrolls that appear on the screen. Emergency information provided by means other than closed captioning should not block any closed captioning, and closed captioning should not block any emergency information provided by means other than closed captioning. Closed captions are visual text displays that are hidden in the video signal. You can access closed captions through your remote control or on-screen menu (all TVs with a 13-inch or larger diameter screen manufactured after 1993 have caption decoder circuitry) or through a special decoder. Open captions are an integral part of the television picture, like subtitles in a movie. In other words, open captions cannot be turned off.
Text that advances very slowly across the bottom of the screen is referred to as a crawl; displayed text or graphics that move up and down the screen are said to scroll.

In the case of persons who are visually impaired, emergency information that is provided in the video portion of a regularly scheduled newscast or a newscast that interrupts regular programming must be made accessible. This requires the aural description of emergency information in the main audio. If the emergency information is being provided in the video portion of programming that is not a regularly scheduled newscast or a newscast that interrupts regular programming (e.g., the programmer provides the emergency information through “crawling” or “scrolling” during regular programming), this information must be accompanied by an aural tone. This tone is to alert persons with vision disabilities that the broadcaster is providing emergency information, and alert such persons to tune to another source, such as a radio, for more information.

What information about the emergency must be provided?
The information provided visually and aurally must include critical details regarding the emergency and how to respond. Critical details could include, among other things:

- details regarding the areas that will be affected by the emergency;
- evacuation orders, detailed descriptions of areas to be evacuated and specific evacuation routes, road closures; and
- approved shelters or the way to take shelter in one’s home, instructions on how to secure personal property, and how to obtain relief assistance.

What are the requirements for emergency information during non-news programming?
On April 8, 2013, the Federal Communications Commission (FCC) adopted rules to make televised emergency information more accessible to individuals who are blind or visually impaired.

The new rules require emergency information that appears visually during a non-news program (such as when information about the emergency appears visually on the bottom of the screen during a regularly scheduled program) to be provided audibly on a secondary audio stream.

The rules will take effect two years after publication in the Federal Register. However, The Weather Channel has an additional six months to comply, and The Weather Channel on DIRECTV has an additional one year to comply.
What is the Twenty-First Century Communications and Video Accessibility Act of 2010 (CVAA)?

On October 8, 2010, the Twenty-First Century Communications and Video Accessibility Act (CVAA) became law. The CVAA updates federal communications law to increase the access of persons with disabilities to modern communications. The CVAA makes sure that accessibility laws enacted in the 1980s and 1990s are brought up to date with 21st-century technologies, including new digital, broadband, and mobile innovations.

What are Section 718 and Section 716 of the Twenty-First Century Communications and Video Accessibility Act of 2010 (CVAA)?

On April 29, 2013, the FCC released a Report and Order to implement Section 718 and part of Section 716 of the Communications Act. Both of these sections were added to the Communications Act by the Twenty-First Century Communications and Video Accessibility Act of 2010 (CVAA).

The Report and Order does the following:

- **Section 718**: Requires Internet browsers installed on mobile phones to be accessible to and usable by individuals who are blind or have a visual impairment, unless doing so is not achievable. This requirement applies when Internet browsers are used for any purpose.
- **Section 716**: Requires Internet browsers installed on equipment used for advanced communications services, such as computers, laptops, and tablets used for e-mail, to be accessible to and usable by individuals with disabilities, unless doing so is not achievable. This requirement applies when Internet browsers are used for advanced communications services.

These requirements apply to Internet browsers installed on mobile phones and equipment used for advanced communications services that are manufactured on or after October 8, 2013.

Resources

For more information about federal law and emergency communications for people who have disabilities, visit the following sites:

- Department of Justice Nondiscrimination on the Basis of State and Local Government Services Regulations, 28 C.F.R. Part 35, § 35.160
(2005). The Department’s Title II regulation is available at [www.ada.gov/req2.html](http://www.ada.gov/req2.html)

- General Effective Communication Requirements Under Title II of the ADA for State and Local Governments [http://www.ada.gov/pcatoolkit/chap3toolkit.htm](http://www.ada.gov/pcatoolkit/chap3toolkit.htm)


19 Additional Effective Communication Reference Resources to Support People with Disabilities and Others with Access and Functional Needs

Emergency Response for People Who Have Access and Functional Needs: Resources and Training Tools for First Responders and Volunteers

Emergency responders and volunteers have varying levels of familiarity with people with disabilities and with those who have access and functional needs. The purpose of this information is to provide emergency personnel and volunteers with reference tools and education that will provide guidance for assisting people with disabilities and those who have access and functional needs during the response and recovery phases of an emergency situation.

**Watch the video: A Closer Look: The Community Café** Please switch to the DVS/SAP—Descriptive Video Service with DVS/SAP. When you do, you’ll see captioning (icon on far right of screen that looks like a word bubble with two lines) and Audio Description. See [The Community Café video](http://transition.fcc.gov/cgb/consumerfacts/CVAA-access-act.pdf).

**What is Audio Description?** Audio Description is performed by a narrator who describes what is happening in the film so that people who are blind can learn the content of the film.
The following videos demonstrate personal assistive devices:

- **Personal Assistive Devices (Full Video)** (Audio Description and Captioning Capability)
- Other Videos:
  - Introduction to Personal Assistive Devices
  - Caption Phones
  - Flashing Fire Alarms
  - Video Phones
  - Voice to Text
  - Blind and Low Vision
  - Magnifiers
  - Tablets
  - Laptops
  - Wheelchairs
  - Power Wheelchairs
  - Crutches
  - Transportation
  - Medical Devices
  - Summary/Conclusion of Personal Assistive Devices

**Flip Book Guide** This is an electronic version of the *Emergency Response for People Who Have Access and Functional Needs: A Guide for First Responders*. This guide can be printed.

**Additional Video Resources**

Select the links below to link to additional videos:

- Video Relay Service on an iPad
- Video Relay Service on Android
- The UbiDuo in Action in a Medical Setting
- CAP Video Phones.
- CAP Assistive Listening Devices (ALDs)
- Assistive Listening Devices at Adobe Hearing Center
- PODD Communication Book
- Computer-Based Communication Device
- JAWS Screen Reader Demonstration
- Demonstrations of What It Might Be Like to Have Visual and/or Hearing Disabilities
- Answers, in American Sign Language, to Questions Survivors Ask About Federal Disaster Aid

To Learn More about Audio Description, visit the *Audio Description Project*. 
Communicating with Vulnerable Populations: A Transportation and Emergency Management Toolkit

This toolkit, even though the main focus is not social media, is that their suggestions emphasize relationship building—something that social media can help accomplish. They state that local emergency managers should;

"Understand the local community sufficiently to decide what information is important and how best to communicate it in fully accessible formats so that people are informed, responsive, and motivated."

"Encouraging individuals to act during emergencies requires communicating with them through multiple channels."

- These channels depend on trusted relationships built over time, so they are well established in times of crisis.
- A pre-crisis network of communication channels can carry messages across barriers and create a safety net that prevents people from missing access to transportation assistance in emergencies.”

For information about communication with vulnerable populations with respect to transportation and emergency management, go to Transit Cooperative Research Program Report 150.

Integration of social media into emergency service procedures

The presentation is available on YouTube by CFA (Country Fire Authority, Victoria, Australia) Digital Media Manager, Martin Anderson, who discusses the integration of social media into emergency service procedures in Victoria, Australia. Mr. Anderson points out that the full adoption of social media had to come with three main changes in mindset:

- From "We hold the info the community needs and we expect them to come to us" to "We realize we need to go to the community."
- From "We will decide what the community needs" to "The community will tell us what they need."
- From "The public is a liability" to "The public is a resource."

To see the video of Mr. Anderson, go to emergency management in the social media age.
Whole Community: Three Principles

The concept of “whole community” has three principles. They are as follows:

- Understand and meet the actual needs of the whole community. Community engagement can lead to a deeper understanding of the unique and diverse needs of a population, including its demographics, values, norms, community structures, networks, and relationships. The more we know about our communities, the better we can understand their real-life safety and sustaining needs and their motivations to participate in emergency management-related activities prior to an event.

- Engage and empower all parts of the community. Engaging the whole community and empowering local action will better position stakeholders to plan for and meet the actual needs of a community and strengthen the local capacity to deal with the consequences of all threats and hazards. When the community is engaged in an authentic dialogue, it becomes empowered to identify its needs and the existing resources that may be used to address them.

- Strengthen what works well in communities. A Whole Community approach to building community resilience requires finding ways to support and strengthen the institutions, assets, and networks that already work well in communities and are working to address issues that are important to community members on a daily basis.

To learn more about the Whole Community concepts, go to Whole Community on the FEMA website.

Emergency 2.0 Wiki Accessibility Toolkit

Emergency managers are often asked if their social media is accessible. For many people, the word “accessible” means “available,” but for the disability community it means “can I have equal access to the information that people without disabilities have?” Accessible social media requires design features that make it accessible to a variety of people with disabilities. The Emergency 2.0 Wiki Accessibility Toolkit offers a crowdsourcing site that pools resources on helping emergency managers and homeland security professionals learn how to make their information/resources accessible to everyone.

The Emergency 2.0 Wiki Accessibility Toolkit was developed to empower people with disabilities to use social media for disaster preparedness, response and recovery. This toolkit was developed in response to the fact...
that not all people with a disability are able to access life-saving messages delivered through social media due to the accessibility challenges that the tools currently pose.

**Alerting the Whole Community: Removing Barriers to Alerting Accessibility**

FEMA released Alerting the Whole Community: Removing Barriers to Alerting Accessibility, a report outlining the current efforts made to ensure accessibility for people with access and functional needs within the Integrated Public Alert and Warning System (IPAWS). According to the report, approximately 25 percent of Americans may need “assistance or accommodation to receive emergency alerts,” including people with disabilities and limited English proficiency. The report highlights that IPAWS works to increase accessibility of alerts for all individuals through multi-modal and geo-targeted dissemination while implementing standards that “developers of accessibility products and services can modify their products and services so end-users will receive alerts issued through the IPAWS system.” Noted challenges to ensuring accessible alerts and warnings, as noted by the report, include educating the public as to the importance and capabilities of IPAWS, and adoption of IPAWS within all communities. Galain Solutions notes that despite the challenges, “FEMA’s Integrated Public Alert and Warning System (IPAWS) is moving quickly toward their goal of making sure alerts and warnings are fully accessible by the whole community.”

To see the Full Report: Alerting the Whole Community: Removing Barriers to Alerting Accessibility, go to [IPAWS](https://www.ipaws.gov).

**FEMA and Ad Council Help Americans Prepare for Severe Weather with Wireless Emergency Alerts**

Severe weather and the start of the Atlantic hurricane season reinforce the need for Americans to familiarize themselves with the look, sound and authenticity of real-time Wireless Emergency Alerts (WEAs).

What to expect with the WEAs:

WEAs are emergency messages sent by local authorized government authorities through wireless carriers’ networks. Their characteristics and benefits are as follows:

- The alerts include a special tone and vibration.
- The messages are no more than 90 characters and contain the type and time of the alert, any action individuals should take and the issuing agency.
Types of alerts include extreme weather such as hurricane, tornado or flash flood warnings; AMBER alerts and alerts issued by the U.S. President.
Alerts are broadcast from area cell towers warning everyone in range with a WEA-capable device of a potential emergency situation.
You do not need to register to receive WEA notifications. You will automatically receive alerts if you have WEA-capable phone and your wireless carrier participates in the program.

For frequently asked question about wireless alert capability, go to Wireless Emergency Alerts on the FEMA website.

To encourage, educate and empower Americans to identify WEAs so they can take steps to prepare for emergencies, including natural and human-made disasters, FEMA and Ad Council are unveiling new public service advertisements (PSAs). For more information on WEAs and access English radio, TV, and digital PSAs visit Ready.gov/alerts; and in Spanish language visit radio, TV and digital PSAs Listo.gov/alertas.

The Disaster Resistant Communities Group LLC (DRCG) Just in Time Video Library

The purpose of this on-line library is to provide an easily searched source from which individuals, agencies, and organizations can access Just In Time Disaster Training Videos.

The videos found in this library cover disaster related preparedness, response, and recovery training for a wide variety areas.

The Disaster Resistant Communities Group was established to provide a host of disaster planning and preparedness, response, recovery, and mitigation services to local government agencies and departments as well as community and faith based organizations. Its goals are to:

- Develop innovative concepts to meet the needs of the emergency management community; and
- Enhance a community's ability to plan and prepare for, respond to, recover from and mitigation the effects of future disasters.

To use the Just in Time Video Library, go to Disaster Resistant Communities Group. Many of the videos deal with functional needs support services and sheltering operations for people with disabilities.

Community Preparedness: Steps for Implementing Preparedness for Everyone: Training Course: Community
members are the key to our Nation’s preparedness and resilience.

Support the development of prepared, vigilant, and engaged communities by using the following resources:

- Foster strategic partnerships among:
  - The private sector.
  - Nongovernmental organizations.
  - Foundations.
  - Community-based organizations.
- Take the Course: [http://emilms.fema.gov/IS909/index.htm](http://emilms.fema.gov/IS909/index.htm)
- Tools that (available in English and Spanish) are designed to educate individuals and communities about simple steps they can take to become more prepared. [http://emilms.fema.gov/IS909/CP0101150.htm](http://emilms.fema.gov/IS909/CP0101150.htm)

Paratransit Emergency Preparedness and Operations Handbook

This handbook provides paratransit service providers with guidance, strategies, tools, and resources to plan and prepare for, respond to, and recover from a range of emergencies. The guidance has applicability to urban, suburban, rural, and tribal paratransit operating environments. Guidance is directed to in-house paratransit operations and to paratransit services operated under contract. It has relevance for Americans with Disabilities Act (ADA) paratransit and general public demand response operations. For the PDF of the report, go to [Transit Cooperative Research Program Report 160](https://www.trb.org/onlinepubs/trb/2020/2020_960193.pdf).

Red Cross Safe and Well: After a disaster, letting your family and friends know that you are safe and well can bring your loved ones great peace of mind. This website is designed to help make that communication easier.

Residents of Ft. Worth who are Deaf, Blind, Hard of Hearing or Deaf Blind Can Sign Up for Accessible Hazard Alerts

The City of Fort Worth Office of Emergency Management would like to encourage Fort Worth residents who are Deaf, blind, Hard of Hearing, or deaf-blind to sign up for the City of Fort Worth’s Accessible Hazard Alert System (AHAS). If you are already enrolled, please encourage your friends to enroll by going to [http://ftwahas.deaflink.com/](http://ftwahas.deaflink.com/) The Fort Worth Office of
Emergency Management knows the first step to being prepared is to be informed!


**About the ADA National Network:**

The ADA National Network provides information, guidance and training on the Americans with Disabilities Act (ADA), tailored to meet the needs of business, government and individuals at local, regional and national levels. The ADA National Network consists of ten Regional ADA National Network Centers located throughout the United States that provide local assistance to ensure that the ADA is implemented wherever possible. We are not enforcement or regulatory agency, but a helpful resource supporting the ADA's mission to "make it possible for everyone with a disability to live a life of freedom and equality."

The ADA National Network **announces the availability of “The Americans with Disabilities Act Questions and Answers booklet.”** This document is designed to provide answers to some of the most often asked questions about the ADA. Produced collaboratively by the 10 regional members of the ADA National Network, the information in this booklet has been adapted from “The Americans with Disabilities Act Questions and Answers” document produced by the U.S. Equal Employment Opportunity Commission and U.S. Department of Justice, Civil Rights Division, October 2008 version.

Download the following in HTML or PDF;

- ADA FAQ Handbook  [https://adata.org/FAQbooklet](https://adata.org/FAQbooklet)
- The ADA Disability Law Handbook  [https://adata.org/lawhandbook](https://adata.org/lawhandbook)
- Titles II (State and Local Governments) and Title III (Public Accommodations) Fact Sheets at  [https://adata.org/factsheets_en](https://adata.org/factsheets_en)

**Project Endeavor**

The Video Library on the Project Endeavor website offers many educational videos. In the category, **Access to Communication**, you will find videos regarding telecommunication technology like Captel, IP Relay, and VRS; accessibility technology like Real Time Captioning, FM or Loop Systems, assistive listening devices and Cochlear Implant patch cords; definitions of communication access terms like Interpreter Agencies and Communication Modes; much more.
As an emergency management professional, if you have wanted to understand how people who are deaf or hard of hearing use various types of technology, here’s your opportunity to learn more. At the video library link, you can learn about various types of equipment and access to communication.

**Video Library:** [http://www.projectendeavor.com/VideoLibrary.aspx](http://www.projectendeavor.com/VideoLibrary.aspx)

**Home Use Devices: How to Prepare and Handle Power Outages for Medical Devices that Require Electricity**

As a home medical device user, it is important that your device works during a power outage and that you have a plan in place to ensure you know what to do. This booklet will help you have an established plan to

- obtain and organize your medical device information,
- take necessary actions so that you can continue to use your device,
- have the necessary supplies for the operation of your device, and
- know where to go or what to do during a power outage.

If you use more than one medical device, complete a booklet for each device and ask your healthcare professional to help you. For more information, go to **Home Use Devices**: How to Prepare and Handle Power Outages for Medical Devices that Require Electricity

**New tornado app brings American Red Cross safety information to mobile devices**

The American Red Cross launched its official Tornado App this week, putting lifesaving information right in the hands of people who live in, visit or have loved ones in tornado-prone areas, such as Texas.

This free app—available in English or Spanish—gives iPhone, iPad and Android smart phone and tablet users instant access to local and real-time information, so they know what to do before, during and after a tornado.

The app includes a high-pitched siren and “tornado warning!” alert that signals people when a NOAA tornado warning has been issued in their area—even if the app is closed. An “all clear!” alert lets users know when a tornado warning has expired or has been cancelled.

Other features of the app include:

- Location-based NOAA tornado, severe thunderstorm and flood watch and warning alerts;
- Enhanced weather maps;
• One-touch “I’m safe” messaging that allows users to broadcast reassurance to family and friends that they are out of harm’s way;
• Simple steps and checklists people can use to create an emergency plan and share it with household members;
• Preloaded content that gives users instant access to critical action steps, even without mobile connectivity;
• Toolkit with flashlight, strobe light and audible alarm;
• Locations of open Red Cross shelters; and
• Badges users can earn through interactive quizzes and share on social networks.

Launched during National Severe Weather Preparedness Week, the Tornado App is the latest in a series of mobile apps created by the Red Cross, one of the nation’s leaders in emergency preparedness. The apps have been used to help save lives during hurricanes, earthquakes and wildfires.

The Tornado App, along with the others, can be found in the Apple App Store and the Google Play Store for Android by searching for American Red Cross or by going to redcross.org/mobileapps. Apps can help prepare people for disasters, but they are not a substitute for training. Red Cross First Aid and CPR/AED training empowers people to know how to respond to emergencies in case advanced medical help is delayed. People can visit redcross.org/takeaclass for course information and to register.

Guide to Teaching Fire Safety to Students with Disabilities

The Minger Foundation has prepared a Guide to Teaching Fire Safety to Students with Disabilities. This guide is the product of a team of fire safety and disabilities experts and is designed to help the fire safety educator who is experienced in teaching fire safety but may need some guidance when working with an audience of students with disabilities. Accompanying this guide are a series of videos focusing on four disabilities:

• Carey who is Vision Impaired http://youtu.be/OE7EPIsJqJd (Transcript and Captioned)
• Sarah who is Hard of Hearing and Deaf http://youtu.be/xLtfKv_Ldbs (Transcript and Captioned)
• Shari who is Mobility Impaired http://youtu.be/PoV0gV0HUyA (Transcript and Captioned)
• Ian who has a Learning and Developmental Disorders http://youtu.be/v-atiYhNxtc (Transcript and Captioned)

Each video covers four fire safety topics that national campus fire safety experts identified as areas of need, including:
Along with these four fire safety videos is a Train-the-Trainer video (http://youtu.be/F24CFPzwW5A) (only the first 34 seconds are captioned), in which the four students talk about how to best teach them fire safety along with a fire captain whose son is on the autism disorder spectrum.

In addition to the guide and these four videos is a wealth of research information from the Minger Foundation. This library will continue to grow so you are encouraged to check back often.

**Getting Real Promising Practices: Inclusive Emergency Management**

This online resource features Promising Practices from the 2011 FEMA Getting Real Inclusive Emergency Management Conference in Washington, D.C. The conference focused on building partnerships and sharing promising practices related to inclusive emergency management. The Texas Governor’s Committee on People with Disabilities’ website hosts a brief summary of each promising practice, a video link and transcript link to more than 40 recommended practices in inclusive emergency management nationwide, and features local, regional, state and federal emergency managers, disability community advocates, and educators. View the videos and transcripts at [Getting Real Emergency Management Conference 2011](#).

**The Federal Communications Commission (FCC)**

The FCC has released a video in American Sign Language (ASL) about Text-to-911 and the FCC’s proposed rules. To access the video, go to:

- FCC YouTube Channel webpage: [http://www.youtube.com/watch?v=xMae3EBBphU](http://www.youtube.com/watch?v=xMae3EBBphU), and

Below is a summary of Text-to-9-1-1 information shared in previous Access Info announcements.

On December 12, 2013, the FCC announced proposed rules about Text-to-9-1-1 and invited the public to comment on the new proposed requirements. For more information, go to [Text-to-911](#).
Text-to-9-1-1 is the ability to send a text message to 9-1-1 from your mobile phone or handheld device. In the proposed rules, all wireless carriers, including certain providers of text messaging applications, such as iMessage, must make it possible for customers to send text messages to 9-1-1 to get emergency help. The four largest wireless carriers committed to make texting to 9-1-1 possible by May 15, 2014.

However, because most 9-1-1 centers are not ready to accept text messages now, the FCC also proposed to require, by June 30, 2013, automated “bounce-back” error messages to consumers who send text messages to such 9-1-1 centers that are not ready to receive these messages. In other words, if you send a text message to a 9-1-1 center that does not have the ability to accept text calls, after June 30, 2013, that center will have to send you back a text message that informs you that you need to reach 9-1-1 in another way. These messages will continue until that center is able to receive emergency calls in text.

For more information about text-to-9-1-1, please visit the FCC webpage at: [http://www.fcc.gov/text-to-911](http://www.fcc.gov/text-to-911), or contact Suzy Rosen Singleton, Disability Rights Office, Consumer and Governmental Affairs Bureau, at Suzanne.Singleton@fcc.gov or (202) 810-1503 (videophone or voice).

For further information regarding this specific proceeding, contact Timothy May, Policy Division, Public Safety and Homeland Security Bureau, at Timothy.May@fcc.gov or (202) 481-1463.

Apps, digital tools to help cope with disasters

The federal Department of Health and Human Services has posted on its Web site a list of apps and digital tools which would help individual cope with disasters and the challenges disasters pose. The apps are divided into five categories:

- Disaster medicine tools
- Disaster resources
- Information about hazardous events and disasters
- Other apps and tools
- Selection guidelines for non-national library of medicine resources

To see this information, go to Disaster Information Management Research Center. HHS notes that the tools on the page are designed to provide mobile device users access to Web-based content. The apps have been developed to run on specific mobile platforms, such as iOS (iPhone), Android, or Blackberry.
Native or standalone apps deliver content to a mobile device and do not require Internet connectivity to view and use the content, and HHS indicates these types on its Web page by the app’s platform name.

Web Apps link a mobile device user to content that requires Internet connectivity to access and use.

Mobile Web is a link to a mobile optimized or mobile enhanced Web site, which is a reformatted version of a Web site that is easier to read on a mobile device.

The official American Red Cross First Aid FREE app puts expert advice for everyday emergencies in your hand. Available for iPhone and Android devices, the official American Red Cross First Aid app gives you instant access to the information you need to know to handle the most common first aid emergencies. With videos, interactive quizzes and simple step-by-step advice it’s never been easier to know first aid. This app has the following features:

- Simple step-by-step instructions guide you through everyday first aid scenarios.
- Fully integrated with 911 so you can call EMS from the app at any time.
- Videos and animations make learning first aid fun and easy.
- Safety tips for everything, from severe winter weather to hurricanes, earthquakes and tornadoes help you prepare for emergencies.
- Preloaded content means you have instant access to all safety information at any time, even without reception or an Internet connection.
- Interactive quizzes allow you to earn badges that you can share with your friends and show off your lifesaving knowledge.

**Facebook App bReddi**

Another application, bReddi, is a free app that helps you and your family prepare for natural disasters and other emergencies that may affect your life. It is also a central location to manage your preparedness needs and to create a safety net inside and outside of your community. Your family and friends need to know what they can do in case of an emergency. With bReddi you can discuss with your friends and family about how you can assist each other before a disaster happens. You can set meeting places and Lifeline roles so there’s no question of what to do, where to go or who to contact when disaster comes your way.
The bReddi app harnesses the power of social media, while leveraging actionable data from trusted public and private sources to deliver America’s first Crowd Sourced Emergency Preparedness Safety Network for Disaster Response. bReddi brings data to life by aggregating and transforming disparate data into consumer friendly insights which are delivered within a captivating and easily navigable experience within the users preferred mobile computing device. The power of social media comes to life by having each user solicit 3 Facebook friends to become lifelines to assist the user during a disaster. The bReddi App has daily value to users as they are able to access their geographic threat levels as they move about in their day-to-day routines for 8 disaster categories for each user or their lifeline connections. In offering an extended and connected experience beyond the App, bReddi also contextually links users to tools and information needed to survive the first 72 hours of a major disaster, building more resilient families and communities. More on http://www.breddi.com/

**Smartphones** are rapidly becoming a must-have item for people at work and in their personal lives. Smartphones are also being used by people with disabilities to gain needed notification and communication during emergencies. The increased functionality of these all-in-one devices means that people with disabilities can greatly enhance their own lives through a device that can be carried around very easily. As these devices become more and more relevant, accessibility will continue to be both a concern and a driving force for innovation. This 45 minute video will highlight built-in and add-on accessibility functionalities of the latest smartphones and continue to be updated with the latest information.

For a 45 minute overview on Smartphone Accessibility, visit the related Discovery Series link http://www.dm.usda.gov/oo/target/smartphone/index.html

**Preparation for emergencies**

“Preparing Makes Sense for People with Disabilities and Other Access and Functional Needs” is a captioned instructional video from FEMA, containing information specific to Americans with disabilities or other access and functional needs regarding emergency preparedness. For more information from the FEMA site, go to:

- [http://www.fema.gov/medialibrary/media_records/7028](http://www.fema.gov/medialibrary/media_records/7028)
Additional Resources

Preparing for Disaster for People with Disabilities (American Red Cross)
http://www.redcross.org/images/MEDIA_CustomProductCatalog/m4240199_A4497.pdf

Prepare For Emergencies Now: Information For People With Disabilities (Ready.gov)

DisAbilityConnect

If you need to find an organization in your state that has disability information or provides support for parents, or if you need the contact information for a national disability specific organization, consider contacting the National Dissemination Center for Children with Disabilities (NICHCY), which has apps for these situations. Find the contact information for organizations providing information on disabilities, special education, early intervention, support groups, and many more while you are at a doctor’s appointment or even at a school meeting with just a tap of your finger!

Android: Go to Disability Connect.

Today’s digital media environment is rapidly evolving, driven by the proliferation of devices people use to consume content both at home, at work and on the go. Not too long ago, consumers depended solely on their desktop computer or laptop to connect online. Now, a growing number of consumers are likely to access a wide variety of digital content across a multitude of devices on a daily basis. With smartphones, tablets and other connected devices, consumers have become digital omnivores—not just because of the media they consume, but also in how they consume it. Cross-platform consumption has created a vastly different digital landscape, and it is one that requires insight into both the individual usage of devices as well as the nature of their complementary use.

People with disabilities are using accessible smart devices each day to access information. Smart devices open up new opportunities for emergency managers to connect with the whole community.

Full Whitepaper Report: go to comScore.
Helpful Emergency Preparedness Apps for Smart Devices

Hurricane HD: iPad, iPhone, iPod Touch. Hurricane HD lets you track storms, with moving radar and satellite imagery from the National Hurricane center. It provides tropical bulletins, forecasts, and advisories for the Atlantic and Pacific Basins.

Global Alert Network: iPad, iPhone, iPod Touch, Android BlackBerry. Free The Global Alert Network delivers hands-free national traffic and weather alerts. See iTunes for Apple devices, or go to BlackBerry for a download. The Global Alert Network is a location-aware network platform that automatically broadcasts audible hands-free alerts to mobile devices. You choose to subscribe to weather or traffic alerts, which are geo-targeted to your location.

iMap Weather Radio: iPad, iPhone, iPod Touch, Android soon. Nothing beats having a weather radio for the most up-to-date info, but you can't always have that with you. You do usually have your phone, though, so having this app gives you all the tracking info you need, plus a built-in weather radio. You can tell it up to five locations—where you are or where you're headed, or where family members are. With iMap Weather Radio, you will receive critical voice and text alerts on life-threatening weather events. The app provides an early warning to help individuals and families seek safety, even in the middle of the night. "Follow me" feature: Reads your GPS location and delivers alerts to you no matter where you are. An audio feature not only gives you the latest weather, but also provides audio alerts in the form of beeps followed by a brief description of the alert. The audio alerts you to the information you need when you can't stop to look at the phone, perhaps if you're driving. You can always listen to the alerts and forecast for your area at any time.

The Weather Channel: iPhone, iPod touch, and iPad, Android. Free The Weather Channel has fully customizable weather maps, animated radar maps, detailed weather conditions and forecasts, severe weather alerts, and a notification bar with the current temperature and severe weather alert indicator. In addition to the popular location-based local video forecasts, the video section now includes the "Must See Six" videos each day from a national collection. It allows you to get weather forecasts for your location or search by city, ZIP code, street address or landmark. The app also includes interactive maps that are fully customizable and feature the functionality of Google Maps. Customers can decide to display layers such as radar, clouds, UV index, rainfall and more.
**Global Alert Network:** iPad, iPhone, iPod Touch, Android Blackberry. Free The Global Alert Network delivers hands-free national traffic and weather alerts. See iTunes for Apple devices, or go to BlackBerry for a download. The Global Alert Network is a location-aware network platform that automatically broadcasts audible hands-free alerts to mobile devices. You choose to subscribe to weather or traffic alerts, which are geo-targeted to your location. The application running on the phone keeps track of the phone's location, not the Global Alert Network servers. When an alert is created, the alert zone is downloaded to the phone and the phone makes the determination if you are affected by the alert and whether the alert should be played.

**FEMA's mobile Web site** [http://m.fema.gov/](http://m.fema.gov/) provides answers to the agency's most-often asked questions, and includes a graphic showing the flood risk in the specific area where you live.

The American Red Cross has an app called **Shelter View** that tells you what shelters are open and how close they are to capacity.

**Disasterassistance.gov.** After the storm is over, this free app from the government helps you locate and apply for relief.

**Additional Resources:**


**DSHS Ready or Not Campaign**

**The Texas Department of State Health Services (DSHS)** has developed the Ready or Not? Campaign website, which is dedicated to preparing Texans for emergencies. Use this online resource to build your emergency plan—including family strategies, checklists, and functional or access needs considerations for people with disabilities, the elderly, and pets.

The website was established to provide a single resource for all Texans to begin their personal preparedness effort. DSHS has been collaborating with the Texas Department of Assistive and Rehabilitative Services (DARS), to make sure that these important messages are available across the state to people who are deaf or hard of hearing.

Key components to the website’s preparedness campaign are videos about preparing for and surviving disasters. These six videos, each about eight
minutes long, were produced as a “Surviving Disaster” series for the DSHS Ready or Not? Campaign. All of the videos have been translated into American Sign Language by signers who are deaf. In addition, the videos have also been captioned for the benefit of non-signers who are deaf or hard of hearing.

In addition to the six Ready or Not? videos, there are two 30-second TV spots about fighting flu that have also been captioned, translated, and posted online.

“Preparing the Workplace for Everyone: Accounting for the Needs of People with Disabilities,” is a tool offering practical guidelines to help emergency managers and employees plan for workplace emergencies. To access this tool, go to the U.S. Department of Labor’s Office of Disability Employment Project’s site, Emergency Preparedness.

Community Emergency Preparedness Information Network (CEPIN) is offering an eight-hour Department of Homeland Security (DHS)-certified direct delivery program that provides emergency responders with the tools to address the emergency and disaster preparedness needs of people who are deaf, hard of hearing or deafblind. The course also gives individuals who are deaf, hard of hearing and deafblind a better understanding of the roles and responsibilities of emergency responders during emergencies and disasters. For more information about the course, go to CEPIN.
Appendix 1: Resources for creating accessible documents

How to Test a Document Using JAWS

Many people who are blind or visually impaired use JAWS (Job Access with Speech), a screen reader that reads text aloud. Whatever your service or program, you'll want everyone to be able to receive the same information, and for emergency managers, making your website accessible to screen readers is critical for citizens to receive information. If your documents and website are created accessibly, everyone benefits by getting the same information.

- YouTube Video: How to Test a Document Using JAWS
- Download Audio MP3 File: How to Test a Document Using JAWS
- Download Instructional Word Document: How to Test a Document Using JAWS
- Download Instructional Adobe PDF: How to Test a Document Using JAWS

Colors and Contrast

Appropriate color and contrast are necessary to see words and clearly understand the message. This is especially true for people who have color blindness, which is the inability to distinguish one or several chromatic colors, independent of the capacity for distinguishing light and shade, or have other visual disabilities.

- YouTube Video: Colors and Contrast
- Download Audio MP3 File: Colors and Contrast
- Download Instructional Word Document: Colors and Contrast
- Download Instructional Adobe PDF: Colors and Contrast

Creating Accessible Lists and Columns

Properly formatted lists and columns are accessibility requirements. In this module, you will learn how to use the tools included in Word 2010 to make lists and columns readable by everyone. There are added benefits to using these tools to make your work accessible.

- YouTube Video: Lists and Columns
- Download Audio MP3 File: Lists and Columns
- Download Instructional Word Document: Lists and Columns
- Download Instructional Adobe PDF: Lists and Columns
How to Make Hyperlinks Accessible

One benefit of electronic documents is the ability to link to other information. A hyperlink is text that is associated with a web address or uniform resource locator, or URL. Hyperlinks can take us to websites, other documents, or even other places within the document itself. This step-by-step guide will teach you how to make hyperlinks that are accessible to people using assistive technology.

- **YouTube Video: How to Make Hyperlinks Accessible**
- **Download Audio MP3 File: How to Make Hyperlinks Accessible**
- **Download Instructional Word Document: How to Make Hyperlinks Accessible**
- **Download Instructional Adobe PDF: How to Make Hyperlinks Accessible**

How to Make Figures Accessible

Photos, drawings, charts, graphs, and other figures add value to communications. Ensure the information contained in figures is available to people with disabilities. This module will walk you through a step-by-step approach to ensure that your figures are accessible.

- **YouTube Video: How to Make Figures Accessible**
- **Download Audio MP3 File: How to Make Figures Accessible**
- **Download Instructional Word Document: How to Make Figures Accessible**
- **Download Instructional Adobe PDF: How to Make Figures Accessible**

Templates and Styles: The Basics (Headings and Structure)

This module presents some of the building blocks of creating an accessible document.

- **YouTube Video: Templates and Styles, the Basics (Headings/Structure)**
- **Download Audio MP3 File: Templates and Styles, the Basics (Headings/Structure)**
- **Download Instructional Word Document: Templates and Styles, the Basics (Headings/Structure)**
- **Download Instructional Adobe PDF: Templates and Styles, the Basics (Headings/Structure)**

Making an Old Document Accessible
Older documents may contain valuable information, but the document may not be accessible. This module will walk you through a step-by-step process to make an old document accessible.

- YouTube Video: How to Make an Old Document Accessible
- Download Audio MP3 File: How to Make an Old Document Accessible
- Download Instructional Word Document: How to Make an Old Document Accessible
- Download Instructional Adobe PDF: How to Make an Old Document Accessible

**Using the Accessibility Checker**

Check your documents for accessibility errors. This module explains how to find and use the accessibility checker that is built in to Office 2010.

- YouTube Video: Using the Accessibility Checker
- Download Audio MP3 File: Using the Accessibility Checker
- Download Instructional Word Document: Using the Accessibility Checker
- Download Instructional Adobe PDF: Using the Accessibility Checker

**Accessibility and Productivity Ribbon**

Finding all of the tools necessary to make a Word document accessible can be confusing. Use this module to learn how to download, install, and use the "Accessibility/Productivity Ribbon."

- YouTube Video: Productivity / Accessibility Ribbon Explained
- Download Audio MP3 File: Productivity / Accessibility Ribbon Explained
- Download Instructional Word Document: Productivity / Accessibility Ribbon Explained
- Download Instructional Adobe PDF: Productivity / Accessibility Ribbon Explained

**How to Create Accessible Emails**

In this video, you’ll learn how to create and design your email so the recipient with a disability has access to the information.

Learn how to create email everyone can read.

- YouTube Video: Creating Accessible Emails
- Download Audio MP3 File: Creating Accessible Emails
- Download Instructional Word Document: Creating Accessible Emails
- Download Instructional Adobe PDF: Creating Accessible Emails
The following sites have information about creating accessible websites and documents:

- **Texas HHS Accessibility Center**
  - ([http://architecture.hhsc.state.tx.us/myweb/accessibility/index.asp](http://architecture.hhsc.state.tx.us/myweb/accessibility/index.asp))

- **Knowbility – Access U**

- **WebAIM**

- **Plain Language.gov**

- **Statewide EIR Accessibility Website (DIR)**
- Texas Administrative Code Title 1, [Section 206](http://www.hhsc.state.tx.us/accessibility)section and [Section 213](http://www.hhsc.state.tx.us/accessibility)
- Texas Government Code 2054, Subchapter M
- [Section 508 of the Rehabilitation Act of 1973](http://www.hhsc.state.tx.us/accessibility)
- [World Wide Web Consortium (W3C)](http://www.hhsc.state.tx.us/accessibility)

### How to Test a Document Using JAWS

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- **Download Instructional Word Document: How to Test a Document Using JAWS**
- **Download Instructional Adobe PDF: How to Test a Document Using JAWS**

### Microsoft Office 2010

Transitioning from Office 2003 to Office 2010
• **YouTube Video: Transitioning from Office 2003 to Office 2010**
• **Download Audio MP3 File: Transitioning from Office 2003 to Office 2010**
• **Download Instructional Word Document: Transitioning from Office 2003 to Office 2010**
• **Download Instructional Adobe PDF: Transitioning from Office 2003 to Office 2010**

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**Microsoft Outlook 2010**

**Creating Accessible Emails**

• **YouTube Video: Creating Accessible Emails**
• **Download Audio MP3 File: Creating Accessible Emails**
• **Download Instructional Word Document: Creating Accessible Emails**
• **Download Instructional Adobe PDF: Creating Accessible Emails**

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**Microsoft Word 2010**

**Productivity and Accessibility Ribbon Explained**

• **YouTube Video: Productivity / Accessibility Ribbon Explained**
• **Download Audio MP3 File: Productivity / Accessibility Ribbon Explained**
• **Download Instructional Word Document: Productivity / Accessibility Ribbon Explained**
• **Download Instructional Adobe PDF: Productivity / Accessibility Ribbon Explained**

• **Download Accessibility Ribbon Quick Reference Word Document**
• **Download Accessibility Ribbon Quick Reference Adobe PDF**
Productivity/Accessibility Ribbon Installation Instructions

- Download Word Ribbon (.exportedUI) File (Zipped File)
- Download Instructional Word Document: Productivity / Accessibility Ribbon Installation Instructions
- Download Instructional Adobe PDF: Productivity / Accessibility Ribbon Installation Instructions

Using the Accessibility Checker

- YouTube Video: Using the Accessibility Checker
- Download Audio MP3 File: Using the Accessibility Checker
- Download Instructional Word Document: Using the Accessibility Checker
- Download Instructional Adobe PDF: Using the Accessibility Checker

Requirements to Make a Word Document Accessible

- YouTube Video: Requirements to Make a Word Document Accessible
- Download Audio MP3 File: Requirements to Make a Word Document Accessible
- Download Instructional Word Document: Requirements to Make a Word Document Accessible
- Download Instructional Adobe PDF: Requirements to Make a Word Document Accessible

How to Make an Old Document Accessible
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• **Download Instructional Word Document: How to Make an Old Document Accessible**
• **Download Instructional Adobe PDF: How to Make an Old Document Accessible**

**Templates and Styles, the Basics (Headings/Structure)**

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• **Download Instructional Adobe PDF: Templates and Styles, the Basics (Headings/Structure)**

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• **Download Audio MP3 File: How to Make Figures Accessible**
• **Download Instructional Word Document: How to Make Figures Accessible**
• **Download Instructional Adobe PDF: How to Make Figures Accessible**

**How to Make Hyperlinks Accessible**
• **YouTube Video: How to Make Hyperlinks Accessible**
• **Download Audio MP3 File: How to Make Hyperlinks Accessible**
• **Download Instructional Word Document: How to Make Hyperlinks Accessible**
• **Download Instructional Adobe PDF: How to Make Hyperlinks Accessible**

**Lists and Columns**

- **YouTube Video: Lists and Columns**
- **Download Audio MP3 File: Lists and Columns**
- **Download Instructional Word Document: Lists and Columns**
- **Download Instructional Adobe PDF: Lists and Columns**

**Colors and Contrast**

- **YouTube Video: Colors and Contrast**
- **Download Audio MP3 File: Colors and Contrast**
- **Download Instructional Word Document: Colors and Contrast**
- **Download Instructional Adobe PDF: Colors and Contrast**

**How to Make Accessible Tables**

- **YouTube Video: How to Make Accessible Tables**
- **Download Audio MP3 File: How to Make Accessible Tables**
- **Download Instructional Word Document: How to Make Accessible Tables**
- **Download Instructional Adobe PDF: How to Make Accessible Tables**

**Word Forms**
YouTube Video: Word Forms
Download Audio MP3 File: Word Forms
Download Instructional Word Document: Word Forms
Download Instructional Adobe PDF: Word Forms

Converting Word 2010 to PDF

YouTube Video: Converting Word 2010 to PDF
Download Audio MP3 File: Converting Word 2010 to PDF
Download Instructional Word Document: Converting Word 2010 to PDF
Download Instructional Adobe PDF: Converting Word 2010 to PDF

Microsoft Excel 2010

How to Make an Excel Spreadsheet Accessible, Part 1

YouTube Video: How to Make an Excel Spreadsheet Accessible, Part 1
Download Audio MP3 File: How to Make an Excel Spreadsheet Accessible, Part 1
Download Instructional Word Document: How to Make an Excel Spreadsheet Accessible, Part 1
Download Instructional Adobe PDF: How to Make an Excel Spreadsheet Accessible, Part 1

How to Make an Excel Spreadsheet Accessible, Part 2
• YouTube Video: How to Make an Excel Spreadsheet Accessible, Part 2
• Download Audio MP3 File: How to Make an Excel Spreadsheet Accessible, Part 2
• Download Instructional Word Document: How to Make an Excel Spreadsheet Accessible, Part 2
• Download Instructional Adobe PDF: How to Make an Excel Spreadsheet Accessible, Part 2

How to Make Accessible Excel Forms, Part 1

• YouTube Video: How to Make Accessible Excel Forms, Part 1
• Download Audio MP3 File: How to Make Accessible Excel Forms, Part 1
• Download Instructional Word Document: How to Make Accessible Excel Forms, Part 1
• Download Instructional Adobe PDF: How to Make Accessible Excel Forms, Part 1

How to Make Accessible Excel Forms, Part 2

• YouTube Video: How to Make Accessible Excel Forms, Part 2
• Download Audio MP3 File: How to Make Accessible Excel Forms, Part 2
• Download Instructional Word Document: How to Make Accessible Excel Forms, Part 2
• Download Instructional Adobe PDF: How to Make Accessible Excel Forms, Part 2

• Download Microsoft Excel Quick Reference Word Document
• Download Microsoft Excel Quick Reference Adobe PDF
Microsoft PowerPoint 2010

Requirements to Make a Presentation Accessible

- YouTube Video: Requirements to Make a Presentation Accessible
- Download Audio MP3 File: Requirements to Make a Presentation Accessible
- Download Instructional Word Document: Requirements to Make a Presentation Accessible
- Download Instructional Adobe PDF: Requirements to Make a Presentation Accessible

PowerPoint: Adding Tables, Charts, Images and Shapes

- YouTube Video: PowerPoint: Adding Tables, Charts, Images and Shapes
- Download Audio MP3 File: PowerPoint: Adding Tables, Charts, Images and Shapes
- Download Instructional Word Document: PowerPoint: Adding Tables, Charts, Images and Shapes
- Download Instructional Adobe PDF: PowerPoint: Adding Tables, Charts, Images and Shapes

- Download Microsoft PowerPoint Quick Reference Word Document
- Download Microsoft PowerPoint Quick Reference Adobe PDF