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Final Report of the Study Group to Examine an Emergency Alert Notification System for Deaf and Hard-of-Hearing Individuals

EXECUTIVE SUMMARY

The Study Group to Examine an Emergency Alert Notification System for Deaf and Hard-of-hearing Individuals was established in the First Regular Session of the 121st Legislature by L.D. 397. Members include representatives of the deaf community, municipal emergency service providers, law enforcement, the broadcasting industry, a technology consultant, and a representative of the National Weather Service. It also includes State personnel with interests in this area including the Director of the Maine Emergency Management Agency, the Director of the Division of Deafness, the office of the Chief Information Officer, and a Department of Labor employee knowledgeable in the Disabilities Act of 1990. Interested guests also were welcomed.

The group held three meetings. They also communicated regularly by telephone, E-mail, regular mail, and in person. A definition of an Emergency Alert System was developed for use by the group:

An Emergency Alert Notification system is the technology, people, policies and procedures to contact and warn people to be ready and watchful, and to provide them information about actions they can take for safety.

Important findings:

*According to estimates, 110,000 Maine citizens have a hearing loss, and
*11,000 Maine citizens are profoundly deaf.
*No one system as we know it will solve the problem of alerting and warning the deaf community.
*Education and outreach are primary and universal needs for a successful emergency notification system.
*The Emergency Alert System (EAS) is voluntary at the State level.
* Systems currently used include: Email transceivers and two-way pagers, weather radios, television captioning, mass telephone notification systems ("Reverse 9-1-1"), disability indicators, alerting systems available on the Internet and by E-mail, and personal contact.
*Interconnection of systems is happening informally.
*The Telecommunication Equipment Program (TEP) has been successful in supplying specialized equipment to deaf/hard of hearing and people with disabilities to facilitate telephone communications.
*There are possible opportunities for improvements and technological advances.
*Redundancy and coordination require alerts be issued on a variety of systems to address the problems of accessibility, coverage, personal preference and human error.

Recommendations:

*Legislation:
- To amend 26 MRSA to expand the Telecommunications Equipment Program to include equipment that facilitates emergency alert notification to deaf and hard-of-hearing people, and to provide training as needed.
- To amend 35-A MRSA to expand Maine's telecommunications policy to add the need for seamless, integrated, and redundant methods of communication in emergency alerting to the State's telecommunications policy.
- To amend 36 MRSA to include a tax incentive for sponsors of closed captioning on television.

*Education: Approach current programs to evaluate adequacy of information on alerting systems and to encourage the inclusion of deaf and hard-of-hearing people in these classes with interpreters. Increase public awareness regarding the need for everyone to know the purpose and limitations of an alert system and what individuals can learn to better protect their families

*Weather Radios: Include signaling device attachments in the TEP program.

*Mass Telephone Notification Systems ("Reverse 9-1-1"): Recommend the State encourages further study of regionalization of a mass telephone notification system.

*Personal Contact and Support Systems: Recommend the development of personal support systems in every neighborhood throughout the state.

*Monitoring Coordination Group: Recommend the formation of this group to allow feedback between representatives of the broadcast industry and the deaf and hard-of-hearing community on a collegial basis.

Conclusion:

An alert system that will address the needs of the deaf and hard-of-hearing population will improve the general preparedness of the state. It also will aid in improvement of the alerting system for all citizens of Maine.

Final Report of the Study Group to Examine an Emergency Alert Notification System for Deaf and Hard-of-Hearing Individuals

Background

LD 391 was submitted to the First Regular Session of the 121st Maine Legislature by Senator Edmonds of Cumberland. The bill established a study group to examine the development of an emergency alert notification system to protect the safety of deaf and hard-of-hearing individuals and submit a report, including findings and recommendations and suggested legislation, to the Second Regular Session of the 121st Legislature.

Study Group Composition

Arthur Cleaves, Director, Maine Emergency Management Agency (MEMA), Chairperson
Peter J. Brown, Writer and Satellite Technology Consultant to MEMA, Mount Desert
Stephan Bunker, Staff Development Coordinator, Emergency Services Communications Bureau, Maine Department of Public Safety
Don Carroll, Executive Director, Southern Maine Emergency Medical Services, South Portland
Jan DeVinney, Director, Maine Division of Deafness, Augusta
Eric Dibner, State Accessibility Coordinator, Augusta
John Dunleavy, Alpha One, South Portland
Mary Edgerton, Maine Center on Deafness, Portland
Suzanne Goucher, President and CEO, Maine Association of Broadcasters, Augusta
John Jensenius, National Weather Service, Gray
Tom Maher, Maine Dept. of Administrative & Financial Services, Augusta
Rand Maker, Lincoln County Sheriff's Office, Wiscasset
Tristan Richards, Maine Public Broadcasting Corporation, Bangor
Mary K. Silva, Office of the Chief Information Officer, Maine DAFS, Augusta
James Toman, Police Chief, Gardiner.

In addition to the above participants, the following people were invited to participate as they wished, and received all printed information for comment:

Representative Thomas D. Bull, South Freeport
Jon Clark, Esq., Office of Policy and Legal Analysis, Maine State Legislature
Jonathan Connick, Maine Center on Deafness, Portland
Jack Connor, WMTW-TV, Poland Spring
Senator Betheda G. Edmonds, Freeport
Representative Stanley A. Moody, Manchester
Richard B. Thompson, Chief Information Officer, Maine DAFS, Augusta.

Study Group's Process

*Meetings of the full membership were held throughout the study period. Mailings were sent between meetings containing material to be reviewed as well as future topics for discussion.

*Members were encouraged to research areas of expertise and interest, and to develop further suggestions and information for the next meeting.

*Four surveys were conducted:
- o One gathering information on Alert Systems in other states through the Division of Deaf contacts.
- o One gathering the same information through the Emergency Management network.
- o One survey of members of the deaf and hard of hearing population regarding their preference for alerting systems.
- o One gathering information on types of equipment and systems for alerting.

*A definition of an Emergency Alert System was developed to focus the results of the report. This was necessary due to the complexity of the needs encountered and the limited amount of time allowed by legislation. Concerns not addressed in this report are included in the Addendum

Definition of an Emergency Alert System

For the purposes of this study, we have used the following definition:

An Emergency Alert Notification System is the technology, people, policies and procedures to contact and warn people to be ready and watchful, and to provide them information about actions they can take for safety.

Findings

· *In a perfect world, for the deaf and hard-of-hearing, there would be a single device that could alert and warn an individual anywhere in the state. It would be available with an alphanumeric component, work deep in the woods, while in transit, while shopping in an urban area, in one's home, or when visiting in someone else's home. The alert or warning would also be broadcast by the media and be clearly and well captioned. Businesses and neighborhoods would consider it their responsibility to be sure that all in their area had received the message and were taking appropriate actions according to their individual, but knowledgeable, assessment of the need.

We can make progress toward the perfect world through teamwork, networking, innovative planning, public education, outreach and careful investment of limited resources. There are, however, some technological barriers that are, at present, in our way. In some cases effective technology simply does not yet exist. In others the technology exists but the infrastructure does not yet exist in Maine to support it, and market forces are not driving it. And there are cases where a commitment to technological improvement has been made, but the deployment is several years away.

*According to estimates, 110,000 Maine citizens have a hearing loss, and 11,000 Maine citizens are profoundly deaf.
>   Their difficulties in receiving accurate information in the past are the reason for the Legislative Document initiating this study.

*No one system as we know it will solve the problem of alerting and warning the deaf community.
>   There are problems of coverage.
>   There are problems of accessibility (at home, shopping, in cars, etc).
>   There are individual views regarding what equipment is acceptable.
>   There is no single technology that everyone uses, and different types of equipment are in use by various people at any one time.
>   There is always human error.

*Electronic equipment is a burgeoning industry. New products arrive on the market and existing products are upgraded frequently. Many of the elderly find the equipment too confusing to use without lengthy training to overcome their unfamiliarity or uneasiness with it.

*Education and outreach are primary and universal needs for a successful emergency notification system. There are opportunities throughout the education system for raising awareness of the importance of alerting and warning and teaching basic emergency preparedness skills.

Emergency Management Agencies and the American Red Cross offer programs on preparedness. Although many of the EMA courses are slanted to those who are interested in

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doing volunteer or professional work in the field, there are some courses for citizens on self protection as well, and others, although targeted for use by volunteers and first responders, may be open to individuals without their making a commitment to serve.

For instance, the Federal Emergency Management Agency has been promoting the use of the Community Emergency Response Team (CERT) concept since 1994. This training promotes a partnering effort between emergency services and the people they serve. The goal is for emergency personnel to train members of neighborhoods, community organizations or workplaces in basic response skills. Team members are then integrated into the emergency response capability for their area. However, the written material for Community Emergency Response Teams (CERT) training will be available online at the MEMA web site in December, allowing interested participants to acquire and be tested on the written information at their convenience. It is excellent information for individual use. If the person then wishes to become a member of a C.E.R.T team or wishes further training for their own use, s/he can attend fewer classes than the current requirement, since they will have been able to complete a significant amount of the material electronically. These courses are offered through the County Emergency Management Agencies.

The Emergency Management Institute offers a series of independent study programs over the Internet. Materials may be down loaded and the course may be taken at home. A certificate of completion is issued upon successful completion and submission of the final examination. College credit may be issued upon paying a fee.

Adult education programs often offer safety courses. One of these courses usually is a basic preparedness course, and often is taught by County Emergency Management personnel. Others may include fire safety and preparedness for your animals in a disaster. There also are a few adult education programs in the state that are specific to the needs of the deaf and hard-of-hearing. This varies with the school district and with the interest expressed by local citizens.

The American Red Cross and County Emergency Management Agencies also have a 30 minute CD Power Point program titled *Together We Prepare* that is getting a good reception.

If the agency offering these courses is notified of the need, interpreters could be available at any of these courses. Also, a Train-the-Trainer course could be given to instructors who are deaf or hard-of-hearing if they would like to teach the course.

The Maine Center on Deafness consults with clients about their communications needs when they apply for the Telecommunication Equipment Program.

These all offer opportunities for some form of basic education regarding alerting and warning and the proper response to such notification.

*The Emergency Alert System (EAS) is voluntary at the State level. Broadcasters are not required to participate in state-level EAS alerts. However, about 99.6% of Maine broadcasters do participate. This system is tested on a periodic basis according to federal law.

Any broadcasters who elect to participate in the EAS are required to follow the procedures of the EAS Operation Plan. This includes the duration and content of the messages.

*E-mail transceivers and two-way pagers are expensive (from $100 to $200 plus a monthly service charge), and have limited coverage in Maine (see Attachment #4).

*Traditional pagers are less expensive, and cover more areas, but still have limited coverage. Additionally, if they are used only for emergency notification, it is found that people become lax about carrying them.

*Weather radios have almost total coverage of the state, and NOAA issues the warning. Currently it is limited to weather events. Negotiations are in progress between the state and federal governments that hopefully will allow NOAA to cover all warnings in the future. However, the digital message available for transmission is limited. For further information, one must turn to other sources, such as television or the internet.

*Television captioning is the technology necessary for people with hearing loss to have access to what is said in a broadcast. The FCC requires the content of emergency broadcasts to be accessible for all. Members of the deaf community voice frustration that often basic information about emergencies is not clear. Some broadcasts have problems with scrolling and captioning running in the same space, thus concealing one of them. Also critical information may be delivered during live on-the-scene reports which currently are not consistently getting captioned.

The cost of live captioning is $150 - $450 per hour. This makes the cost of sponsorship of closed captioning by private businesses available only to the larger companies. Voice recognition software for captioning is not perfected to the point of being a feasible alternative.

Under Federal Communications Commission (FCC) rules, television stations will be required to close-caption 100% of their program (with a few exceptions) by 2006. Also in 2006, TV stations will be simulcasting 100% of their analog signals in digital format. This will bring new enhancements to closed captioning, such as the ability for the viewer to position the captioning on the TV screen.

The broadcast industry does not have a system for monitoring the effectiveness of its broadcasts for the deaf community.

Due to the federal preemption of broadcast regulation, the state cannot legislate in this area. It can, however, provide incentives to assist in meeting federal closed-captioning requirements.

*Reverse 9-1-1 refers to a system, typically installed in emergency dispatch centers, that allows the entity to create a recorded message or warning for a specified geographic area, and allows mass telephone notifications to individual homes and businesses. There are currently a limited number of emergency dispatch centers that are equipped and using

such a system in the state, due primarily to the high initial expense of the system and monthly services fees and/or fees based on the number of calls transmitted. The cost varies according to the system.

Some systems are limited in that they cannot detect that the location being called is TTY/TDD equipped, resulting in the message not being in the correct format. Some systems do not record whether a call has been answered. The number of dedicated lines available to send out calls limits the number of calls that can be made in a given timeframe to all the affected persons at risk. An additional concern is that since it is an automated call, people may disconnect, thinking it's a telemarketing call.

Of course, the phone system must be operating in order for the system to be used, and such notification is only effective when someone is at home/work to receive the call.

Finally, in order to be effective, the entity must have timely and accurate updates to their service area telephone database.

*Disability Indicators are used in two different ways. The 9-1-1 system allows the dispatcher to know that a person at the calling number has a disability that may require special assistance. A person must notify their Public Safety Answering Point (PSAP) in advance about their disability and, if they are deaf, about their communication need, in order for the dispatcher to have this information. This information then can be forwarded to emergency responders when there is an emergency.

Some local first responders or emergency management agencies throughout the state keep confidential lists of people who have reported they require additional assistance in an emergency. These are not well established since many people are wary of being identified as being vulnerable. There is also a problem of keeping the lists current since we live in a mobile society

Either of these systems must be voluntary in nature. Each requires a concerted public education effort. Each also needs periodic updates and purging of data as submitted by citizens. The local agency must staff the data entry workload.

*Internet and E-mail now are used by private alerting systems on the Internet as well as by the Citizen Alert System on the State Home page. These are also dependent on electricity, the customer having the system on, and timely input of information.

*Personal Contact and personal support networks are becoming more popular since 9/11. Neighbors are encouraged to know each other and to check on each other to be sure messages have been received and people are safe. This again involves voluntary participation and development of a system before the need arises which takes a special effort in today's busy world. It also takes extra effort when a person is deaf due to communications barriers.

*Interconnection of systems are happening informally with private web sites picking up EAS messages and forwarding them to free subscribers through their computers, and

even with some pagers. A formal system of interconnection is now being worked on by the State. The goal is for EAS messages to not only be broadcast on radio and television, but available on the internet and through Alerting websites as well as available to E-mail transceivers and two way pagers.

*The Telecommunication Equipment Program has been successful in supplying specialized equipment to Deaf/Hard of Hearing and People with disabilities to facilitate telephone communications. It is a lending program for low income customers and a cost sharing program for those who wish to purchase outright at half the cost (See Attachment #2).

*Possible opportunities for improvements and technological advances include:
- o Numerous potential hardware and software improvements to the current Emergency Alert System that are currently available or in development.
- o Various Web-based systems, such as the "Citizen Alert System" at www.maine.gov, can automatically relay emergency alerts to web sites, e-mail, pagers, text-capable cellular phones, fax, and personal digital assistant (PDA).
- o When it is time for the State to renew its contract, an upgrade of the cell service system used by State government to offer services similar to the two-way pager service.

*Finally, Redundancy and Coordination require alerts be issued on a variety of systems to address the problems of accessibility, coverage, personal preference, and human error.

The State uses the Emergency Alert System for alerts. Additional information is forwarded to the media and put on the MEMA and State web sites. Private notification services then pass on this information to their subscribers through Email and pager systems.

Local and county levels of government follow similar procedures and expand their notification system to include door to door contact when necessary.

A cadre of State Public Information Officers from the departments of State Government has been developed. They augment the staffing at the State EOC when needed and available. At all times during an emergency they remain aware of the need to send a clear and unified message to the public. Close cooperation and contact between the Maine Emergency Management Agency and other department public information offices has improved the State's ability to communicate clearly to the public. MEMA is also available to assist these departments in public information efforts when they are dealing with an emergency that does not involve other departments.

According to ADA Title II regulations, emergency alerts delivered by any department are required to be accessible to the deaf population. However, the State does not have a unified communications policy or training program to ensure that news conferences, announcements, and critical instructions are delivered in accessible formats, using interpreters or captioning.

Recommendations

Telecommunications Equipment Program

Amend the legislation establishing this program, allowing the program to be expanded to include equipment that facilitates emergency alert notification to deaf and hard-of-hearing people. See Attachment #1.

Education

The primary need is to develop a foundation of self sufficiency, then enhance individual skills and knowledge so each can assist others in informal or formal networks of support. Therefore we recommend that the following actions be taken:

Approach training programs that now exist for the general public concerning disaster preparedness, response, and recovery. Evaluate what they include on alerting systems in relation to communication with people who are deaf. Ask them to accommodate additional training if necessary.

Encourage the inclusion of the deaf and hard-of-hearing with appropriate interpreters in these classes. However, these are voluntary programs, and further work may be needed to overcome the reluctance of many to attend. Most training and educational budgets are relatively limited, so success in expansion of pupils may also call for financial support.

These classes include:

> Adult Education courses on Preparedness
> FEMA Correspondence course on Preparedness (*Are You Ready?*)
> Community Emergency Response Team training
> Providing Train-the-Trainer course if members of the Deaf community wish to be instructors
> Other EMA and ARC courses for training of volunteers in the field

Increase public awareness. Everyone (public officials, first responders, and the general public, including those who are deaf and hard-of-hearing) has a need to know
> The purpose and limitations of an alert system
> Preparedness actions that should be done in advance, such as the development of a human support system, identification of a back up source for urgent information, as well as having a family plan, and necessary supplies to sustain your family for a period of time
> Self protective actions that should be taken as a result of an alert
> What information sources are available to receive alerts and related information
> The importance of keeping batteries charged or having spare batteries

The importance of badges and vests to assist the public in identifying essential personnel
How to use technical equipment (pagers, etc)
How to interpret emergency messages
The importance of local business sponsorship of closed captioning
The need to notify authorities in advance if you have a special need that requires a special response
The availability of ARC/FEMA brochures on preparedness and response.

Although the Maine Emergency Management Agency believes strongly in this need and many County Emergency Management agencies are active in this area, they can only present this material when asked. The American Red Cross also has many personal help programs and has had increased interest since 9-11-01, but they are also involved in other programs and the continuing need to train volunteers. VISTA and RSVP volunteers also may be available to offer such training in the coming year, but the solution cannot be limited to these groups. Local organizations and education systems should be encouraged to offer this opportunity, and where it is currently in place, should be commended.

We each bear this responsibility. If the requests for training grow to the extent that further funding is needed, then it will be a good thing. However, much of this type of training can be absorbed in current budgets. The responsibility for learning to be self-sufficient and capable of helping one's neighbor belongs to each person in good physical and mental health in the State.

Advanced communications systems (E-mail transceivers, alphanumeric pagers, etc.)

Enact legislation to encourage the expansion of this type of notification. An amendment to 35-A MRSA subsection 7101 would add the needs for seamless, integrated, and redundant methods of communication in emergency alerting to the State's telecommunications policy (See Attachment #1).

Expand the Maine Telecommunications Equipment Program to include signaling devices and any other emergency alert equipment necessary to allow those who are deaf to access the necessary equipment. It would also include necessary training. There is a need for legislative action to increase the funding for the program, not only for the increase in types of equipment, but also for the increased staffing needed to provide the necessary information and training involved (See Attachment #1).

Weather Radios

Include signaling device attachments for weather radios in the TEP program with the understanding that the user will need the ability to get further information from another source.

Weather radios serve the basic need for alerting, and, depending on the model, can present a short digital message. With some models, the areas of concern can be limited so a person only gets the warnings he wants within the state. The weakness is in the fact that people may get tired of certain seasonal warnings, and turn off the system.

Since the messages are abbreviated, the education component is necessary to assure the recipient knows initial protective steps to take for the type of emergency.

Television Captioning

Enact legislation to provide incentives for the rapid expansion through sponsorship of closed captioning (See Attachment #1). This would address a need that is not only fundamental to an alert system, but reaches far beyond the needs of the deaf community to many others who need a supplemental form of communication.

Mass Telephone Notification System (commonly referred to as Reverse 9-1-1)

Recommend that as more regionalization takes place throughout the state, the State encourages further study of regionalization of a mass telephone notification system. Although this may not work for people in transit, it is a system that rapidly notifies a large group of people.

Personal Contact and Support Systems

Recommend the development of personal support systems in every neighborhood throughout the state. These systems can include notification when special circumstances require it. Through the development and education of local support groups, neighbor to neighbor groups, Citizen Emergency Response Teams, and local Citizen Corps Councils, both individuals and neighborhoods will become more resistant to disasters.

Interconnection of systems

Enact legislation to encourage the deployment of advanced communications systems that will help expand this interconnection (See Attachment #1). In that way, each individual can use the system they find most useful and acceptable to their needs. Each individual can also have a back up system.

Recommend the formation of a Monitoring Coordination Group consisting of broadcast industry representatives and representatives of the deaf and hard-of-hearing community to allow feedback on a collegial basis.

Conclusion

An alert system that will address the needs of the deaf and hard-of-hearing population will improve the general preparedness of the State. It will also aid in improvement of the alerting system for all citizens of Maine.

We strongly urge the Second Regular Session of the 121st Legislature to act positively on the requests for legislation attached to this proposal for the good of all.

We strongly urge the members of the Second Regular Session of the 121st Legislature to encourage both public and private entities to contribute to the increased accessibility of alerting and warning information for all, through increased awareness, preparedness, and support.

As a result of this committee's efforts and the resulting actions of the Legislature, we hope that in the future those who are deaf and hard-of-hearing will find:

*the alert notification system accessible and understandable

*their knowledge of preparedness enhanced to a degree of not only self sufficiency, but of capability to assist those in need

*their neighborhoods and communities more aware of each individual's special needs, better prepared to immediately help each other, as well as respectful and grateful for the unique gifts and support available when they work together.

ATTACHMENTS:
Addendum
#1 Legislative Request
#2 Summary of TEP program
#3 Survey of Preferences of Deaf and Hard-of-Hearing
#4 Pager coverage maps
#5 Summary of Information on Alerting Systems from Other States
#6 Background on the Emergency Alert System

Maine Emergency Management Agency
72 State House Station
Augusta, Maine 04333
Telephone: 626-4503

Addendum

Throughout this study, the group was often reminded of the needs of others, particularly in the area of information. Those who are blind may be able to hear the alert, but they may have a more difficult time getting detailed information.

There are problems of cognitive understanding for a portion of our population, and that problem increases under stress. We are living in a society where many are new to our country and customs, and English is a new language. We also have a growing population of elderly.

Although the deaf and hard-of-hearing community has made us aware of the complexities of their struggle to receive information, it must be noted that all of us need a redundant system of notification and of support.

Since September 11, 2001, we have been reassessing our strengths and our vulnerabilities. More people have been receiving preparedness training. More people have been questioning the safety and security of their country and their neighborhood.

The ice storm taught us that when systems of communication are affected, our only communication may be with each other. One neighbor may have the proper equipment to hear a message or the adequate vehicle to reach a central gathering place for information.

There is strength in numbers. Knowing one's neighbors and being prepared to help each other will make a difference to everyone in the neighborhood following a disaster.

Through education and the development of a neighborhood or area network, trust can be developed. Sharing the knowledge of personal needs as well as of training, strengths, and resources can develop resilience in a group that will minimize any damage and expedite the recovery from any disaster.

Local first responders have expressed a need to know who has special needs that may need special accommodations in an emergency. However, they also respect the individual's right to privacy. Divulging such information must be on a voluntary basis.

We must develop the best possible system of alerting for our citizens, and the best possible infrastructure to keep us aware of our weaknesses and our strengths, resistant to danger, and resilient in recovery. Working together we can succeed.

One of the great strengths of this Study Group has been its diversity. This has led to many new insights for us all, as well as long discussions in our search for understanding and consensus. We have been successful in our efforts.

However, following our last meeting and receipt of the previous draft of this report, the following suggestions were made by individual members of the group. They were not discussed by the group and do include expansion of duties of the Maine Emergency Management Agency,

They were recommended to be added to the section on Recommendations, and are included here only to acknowledge the individuals' efforts and concerns.

Under *Education*: MEMA should establish an outreach coordinating function to ensure local agencies are using effective communications and to oversee the preparation and distribution of information about the Telecommunication Equipment Program and Disability Indicator, to ensure public access to information links related to emergencies, and to implement and publicize the interconnection of emergency alerting systems.

Under *Television Captioning*: MEMA should oversee and ensure the broadcast of alerts and critical information is accessible to those who are deaf and shepherd a Broadcast Monitoring group to provide feedback, discuss technical solutions, and develop a guide of best practices for emergency alerts for the deaf.

Under *Disability Indicator*: MEMA should coordinate and direct this program, using volunteers and public education. Local Emergency Management Agencies and first responder agencies would implement the program, coordinating with the respective emergency dispatch/PSAP agency, under the coordination and direction of MEMA, using volunteers and public education. The ME Emergency Services Communications Bureau (ESCB) would be available to provide technical assistance regarding indicator code formats, definitions and terms, and to assist in public safety dispatcher and first responder training.

Under *Interconnection of Systems*, the State should invoke uniform practices by establishing statewide policy and procedures, a hierarchy of media employed for different types of alerts, and critical information that must be included. The State should interconnect message delivery and coordinate though other media.

And finally, a recommendation that state and local officials first implement any new emergency alert and warning systems or any necessary upgrades to existing systems in those specific communities included on a state list of two dozen or so potential terrorist targets and high risk zones. These areas must be allocated sufficient resources to ensure redundant systems are in place for the deaf and hard of hearing .

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Sponsor: Pursuant to Resolves Ch. 78)
Drafter: JC
Doc. Name: G:\COMMITTEES\UTE\BILLDRFT\121st-2nd\study alert for deaf.doc(11/17/2003 1:45 PM)
Date: Monday, November 17, 2003

DRAFT

An ACT to Implement the Recommendations of the Study Group to Examine an Emergency Alert Notification System for Deaf and Hard-of-hearing Individuals

Be it enacted...

Part A
(TEP)

Sec. A-1. 26 MRSA §1419, sub-§1, ¶ B-2 is amended to read:

B-2. "Specialized customer ~~telecommunications~~ communications equipment" means ~~telecommunications~~ communications equipment used by persons with disabilities to conduct telephone communications or equipment that provides or assists in providing emergency alert notification to deaf persons or hard-of-hearing persons. "Specialized customer ~~telecommunications~~ communications equipment" includes but is not limited to teletypewriters, artificial larynges, signaling devices, amplified handsets, large number dial overlays, direct telephone dialing, fax machines, equipment necessary to use short message services or text message services or other equipment used by persons with disabilities to provide access to telephone networks or equipment that provides or facilitates emergency alert notice to deaf persons or hard-of-hearing persons.

Sec. A-2. 26 MRSA §1419, sub-§2 is amended to read:

2. **Specialized customer communications equipment system.** The department shall consult with appropriate agencies and organizations serving deaf, hard-of-hearing or speech-impaired persons and persons with disabilities concerning the needs of the specialized customer ~~telecommunications~~ communications equipment system. To the extent that funds are available, the department shall take steps necessary to preserve and maintain a viable specialized customer ~~telecommunications~~ communications equipment system for use by deaf, hard-of-hearing or speech-impaired persons and persons with disabilities in this State, including, but not limited to, providing for repair services and equipment for loaning to persons whose specialized customer ~~telecommunications~~

communications equipment is being repaired. <u>The department may also use available funds to provide training in the use of specialized customer communications equipment</u>.

   Sec. A-3. 26 MRSA §1419-A is amended to read:

   § 1419-A. Specialized customer communications equipment for persons with disabilities

   ~~1. Money for specialized customer communications equipment. The Bureau of Rehabilitation Services within the department, pursuant to appropriation of money to the bureau for specialized customer telecommunications equipment for deaf, hard-of-hearing and speech-impaired persons and persons with disabilities, shall, upon request, provide up to 50% of the cost of specialized customer telecommunications equipment to an organization or municipality that makes available the remaining funds for this equipment in a manner satisfactory to the Director of the Bureau of Rehabilitation Services.~~

   2. Communications Equipment Fund. There is established the ~~Telecommunications~~ <u>Communications</u> Equipment Fund to be used by the Division of Deafness within the Bureau of Rehabilitation Services. The fund is nonlapsing. The Division of Deafness may accept gifts or grants for the purposes of this section. These gifts and grants and authorized appropriations must be deposited in the ~~Telecommunications~~ <u>Communications</u> Equipment Fund and disbursed in accordance with this section. The ~~Telecommunications~~ <u>Communications</u> Equipment Fund may be used for purchase, lease, distribution, upgrading, installation, maintenance and repair of specialized customer ~~telecommunications~~ <u>communications</u> equipment for deaf, hard-of-hearing or speech-impaired persons and persons with disabilities<u> and for training in the use of such equipment</u>. The Division of Deafness may draw on the ~~Telecommunications~~ <u>Communications</u> Equipment Fund in accordance with the ~~telecommunications~~ <u>communications</u> equipment plan required under subsection 3.

   3. Communications equipment plan. The Division of Deafness shall develop a plan to make specialized customer ~~telecommunications~~ <u>communications</u> equipment available to deaf, hard-of-hearing or speech-impaired persons and persons with disabilities and to distribute money from the ~~Telecommunications~~ <u>Communications</u> Equipment Fund. The plan must be developed by the Division of Deafness annually, not later than January 1st, in accordance with the rule-making procedures in Title 5, chapter 375. The plan must provide for the expenditure of money from the ~~Telecommunications~~ <u>Communications</u> Equipment Fund for the benefit of deaf, hard-of-hearing or speech-impaired persons and persons with disabilities for the purchase, lease, distribution, upgrading, installation, maintenance and repair of specialized customer ~~telecommunications~~ <u>communications</u> equipment capable of serving their needs <u>and may provide for expenditures for training in the use of such equipment</u>. Persons who are profoundly deaf or speech impaired or who have a disability so that they are unable to use the telephone for expressive or receptive communications, as verified by a written report from an otologist, an audiologist or a physician, are eligible for assistance from the

~~Telecommunications~~ Communications Equipment Fund. The plan must ensure that persons with disabilities have access to appropriate specialized customer ~~telecommunications~~ communications equipment to meet their individual needs. The plan must include specific criteria that govern the priorities assigned to various persons who need this equipment. The criteria must take into account household income, degree of impairment, need for emergency communications, living arrangements and other factors determined relevant by the Division of Deafness. In developing the criteria, the Division of Deafness shall consult with the advisory council established in section 1413-C and other advisory councils representing the interests of persons with disabilities.

4. Specialized customer communications equipment needs in the public school system. The Department of Education, in consultation with the Governor Baxter School for the Deaf and advocacy groups for deaf and hard-of-hearing persons and for the information technology interests of consumers, shall conduct an annual survey of all public schools in the State for the purpose of assessing the need for specialized customer ~~telecommunications~~ communications equipment in the school system and report its findings to the joint standing committee of the Legislature having jurisdiction over labor matters. The report must include: the number of deaf and hard-of-hearing students and their needs for specialized customer ~~telecommunications~~ communications equipment; the availability of specialized customer ~~telecommunications~~ communications equipment; the number of requests for specialized customer ~~telecommunications~~ communications equipment; and the status of training for teachers and other school personnel in the use of specialized customer telecommunications equipment.

5. Assessment on telecommunications carriers. The Bureau of Rehabilitation Services, beginning in fiscal year 1999-2000, shall assess annually telecommunications carriers in accordance with this subsection and deposit the funds collected in the ~~Telecommunications~~ Communications Equipment Fund. The bureau shall assess telecommunications carriers in accordance with a schedule established by the Public Utilities Commission in accordance with this subsection.

A. The Public Utilities Commission shall determine which carriers are to be assessed under this subsection based on an evaluation of the extent of business activity undertaken by carriers in the State and the practicalities of making the assessment. The Public Utilities Commission shall include as many carriers as reasonably practicable in order to ensure a fair and broad allocation of the assessment.

B. The Public Utilities Commission shall establish an assessment schedule that is proportional to the gross annual revenues of the carriers identified for assessment and that will generate beginning in 2005 an annual aggregate of ~~$85,000~~ $122,500.

C. A telecommunications carrier doing business in this State, including a provider of interstate services and a provider of wireless services, shall provide to the Public Utilities Commission, on request, records relating to its gross revenues.

At the request of a carrier, the Public Utilities Commission may issue a protective order in accordance with the Maine Rules of Civil Procedure, Rule 26 (c) to protect any confidential business information provided by the carrier. Records placed under protective order by the Public Utilities Commission to this paragraph are within the scope of a privilege against discovery within the meaning of Title 1, section 402, subsection 3, paragraph B and are not public records while under the protective order.

Sec. A-4. Additional assessment to support start-up of emergency alert system. The Bureau of Rehabilitation Services annual assessment of telecommunications carriers pursuant to Title 26, Section 1419-A, subsection 5 may, for the year 2004, generate an aggregate of $136,750 for deposit in the Communications Equipment Fund. The Bureau, in consultation with the Public Utilities Commission, may make a supplemental assessment prior to December 31, 2004 to collect the difference between amounts previously authorized for 2004 and the $136,750 authorized pursuant to this section.

Sec. A-5. Appropriations and allocations. The following appropriations and allocations are made:

FY 2004-05

DEPARTMENT OF LABOR

Bureau of Rehabilitation Services- Division of Deafness

Initiative: Increases the allocation of funds, generated by increased assessments authorized pursuant to this Act, from the Telecommunications Equipment Fund within the Bureau of Rehabilitation Services, Division of Deafness to support the provision of emergency alert notification equipment for deaf and hard-of-hearing persons and related equipment evaluation, distribution, and training services, including contractual services.

OTHER SPECIAL REVENUE
        All Other   *(to be determined -- difference between current allocation and the $136,750)*

        OTHER SPECIAL REVENUE TOTAL   *(as above)*

PART B
(tax incentive)

Sec. B-1. 36 MRSA §5122, sub§2, ¶ T is enacted to read:

T. The amount given by the taxpayer in the taxable year to a video programming distributor, as defined in 47 Code of Federal Regulations, Section 79.1, to sponsor closed captioning, open captioning or other

methods of visual presentation of audio information for persons who are
deaf or hard-of-hearing.

Sec. B-2. 36 MRSA §5200-A, sub-§2, ¶ P is enacted to read:

P. The amount given by the taxpayer in the taxable year to a video
programming distributor, as defined in 47 Code of Federal Regulations,
Section 79.1, to sponsor closed captioning, open captioning or other
methods of visual presentation of audio information for persons who are
deaf or hard-of-hearing.

PART C
(Telecommunications Policy)

Sec. C-1.   35-A MRSA §7101, sub-§5 is enacted to read:

5. Homeland security and emergency alerts. The Legislature further finds that
seamless, integrated, robust and redundant means of communication, including but not
limited to voice and alphanumeric pagers, landline telephones, wireless telephones, text
radio, and wireless e-mail, create a robust communication system that enables rapid
contact with first responders, ensures emergency alert notification to all affected persons
in the State, including at-risk populations such as the hearing or visually impaired, and
enhances homeland security. It is the policy of the State to encourage the deployment of
the infrastructure necessary to support such a communications system.

SUMMARY

This bill includes the legislative recommendations of the Study Group to Examine
an Emergency Alert Notification System for Deaf and Hard-of-hearing Individuals.

Part A amends the law relating to the Telecommunications Equipment Fund
administered by the Division of Deafness within the Bureau of Rehabilitation Services in
the Department of Labor. Part A expands the use of the fund to include equipment used
to provide or facilitate notice of emergencies to deaf and hard-of-hearing persons and for
training related to such equipment.   It also changes the name of the fund to reflect this
expansion. It also repeals an obsolete provision relating to the provision of up to 50% of
the cost of specialized customer telecommunications equipment under certain
circumstances to an organization or municipality.   Part A increases the
telecommunications carrier assessment to cover the costs associated with providing
equipment to facilitate notice of emergencies to deaf and hard-of-hearing persons and for
training related to such equipment

Part B establishes a new tax incentive for entities that sponsor closed captioning, open
captioning or other methods of visual presentation of audio information for persons who

are deaf or hard-of-hearing. The amount of the sponsorship is subtracted from the taxable income of the entity.

Part C establishes as the policy of the State the encouragement of a communications system that involves seamless, integrated, robust and redundant means of communication that enable rapid contact with first responders and ensure emergency alert notification to all affected persons in the State, including at-risk populations such as the hearing or visually impaired.

Telecommunications Equipment Program
Formerly the "TTY Program"

MRSA 35 § 2361 established a Cost-Share Program to provide teletypewriters (TTYs) to deaf, hard of hearing and speech impaired residents of Maine in 1981. This program was known as the TTY Program. Eligible applicants were responsible for 50% of the cost of the TTY and the Bureau of Rehabilitation Services (BRS) was responsible for the other 50%. There was a cap of $300.00. In 1983 the program was expanded to include a Lending Program for low-income individuals. Financial eligibility is determined by gross income and family size. Incomes below 220% of the U.S Department of Agriculture National Poverty Guidelines qualify for the Lending Program. Individuals under the Cost Share Program are responsible for equipment repair costs; individuals under the Loan Program are not.

MRSA 26 Chapter19, Subchapter II Article II § 1419 & 1419-A expanded the TTY Program to the present Telecommunications Equipment Program (TEP) in 1998, to serve all individuals with disabilities, who cannot use a standard telephone, not only the deaf, hard of hearing and speech impaired. This was as a result of report recommendations from the Commission to Study Funding and Distribution of Teletypewriters and other Telecommunications Equipment for People with Disabilities. The program distributes "specialized telecommunications equipment to individuals with disabilities in Maine". Specialized telecommunications equipment is adaptive equipment for individuals who are unable to use the telephone for expressive and/or, receptive communication or have other barriers to telephone communication via a standard telephone. Both the Cost Sharing and the Lending programs continue under the TEP there is no longer a cap on the Bureau's portion of the cost.

The TEP is presently administered by a contract between the Bureau of Rehabilitation Services/Division of Deafness and the Maine Center on Deafness. Funding for the program comes from two sources, $85,000 from the Public Utilities Commission from annual assessments based on gross revenues of wireless and landline phone companies in Maine and $55,400 from BRS funds.

Deaf Community Survey Results—Emergency Services

A five-question survey was devised to seek input from the Deaf Community regarding emergency alerting devices and systems. The survey was available at the Deaf Culture Festival at The Governor Baxter School for the Deaf on 10-4-03 (approximately 300 Deaf attendees with 17 surveys received) and at ASL News in Bangor on 10-14-03 (approximately 20 attendees with 15 surveys received). Unfortunately only 32 surveys were filled out. While this gives us good feedback, the number of responses cannot be considered statistically significant to represent a community of 4,000 to 5,000 people. All who answered the survey were Deaf and use American Sign Language as their primary mode of communication. A copy of the survey and raw data for questions 1 and 5 are attached.

Question #1—In an emergency, how do you get news? Please list in order 1, 2, 3...how you get emergency information. If you don't use something, just leave blank.

The equipment or devices listed in order from most to least used were:
1. TV (40%)
2. TV/other* (tie) (24%)
3. Friends/family (29%)
4. Email/neighbor (tie) (33%)
5. Cell phone (33%)

    *Other:
        Police/Fire person coming to our place
        Husband
        Landlord (2)
        Wife
        Brother
        Header
        When sky is falling – I will finally realize something is wrong!

Under Question #1 the question was also asked if there were problems with Closed Captioning of the News. 32 responses

    10 left the question blank (31%)
    19 answered, "Yes" (59%)
    3 answered "No" (9%)

Note: Of the 22 people who responded to this question, 19 (86%) reported problems with closed captioning.

Questions 2, 3 and 4 asked about devices or equipment people presently have. 32 responses.

    #2 Do you have a computer with email?
        28 answered, "Yes" (88%)
        4 answered "No" (12%)

The question also included, "**How often do you use it**"? Answers varied from everyday to once a week.

#3 Do you have a one-way pager
    7 answered yes (22%)
    25 answered "No" (78%)

    The question also included, "**What do you use it for**" Responses were (5 responses):
        Emergency (2)
        Work (3)

#4 Do you have a two-way text messaging pager?
    11 answered, "Yes" (34%)
    21 answered "No" (66%)

        The question also asked, "**What kind?**" Six different types were listed.
        T-Mobile (4)
        Arch (2)
        RIM 3800
        2way.net
        Wyndtel

Question #5—If more systems were set-up to give you information in an emergency, which ones would you be interested in? Please list in order 1, 2, 3...what you would want to use. If not interested, just leave it blank.

Equipment, devices or systems people listed as being the most to least interested in using:

1. Pager 2-way (29%)
2. TV (58%)
3. Email (31%)
4. Friends/family (33%)
5. Pager one-way (27%)

Note: respondents also added the following comments on the surveys:

- I prefer to use two-way pagers as the method to receive emergency messages
- No, depend on hearing
- Reverse 911 calls on TTY
- Power goes off, can't use half of these
- Would like cell
- (Next to Pager 2-way)-want to communicate and check on family
- (Next to Email- and Pager 2-way) both because my home is out of range for the pager

Raw Data for Survey Questions numbers 1 and 5.

Note: Of the 32 surveys received, eight people only placed a check mark (√) in the blanks instead of listing items in order. There is a column in the tables below, which show how many check marks each item received. Since it could not be determined which option was used most or preferred most often, these check marks were not included in the percentages for questions 1 and 5.

Question #1—In an emergency, how do you get news? Please list in order 1, 2, 3…how you get emergency information. If you don't use something, just leave blank.

In the table below, the choices given are in the first column. The top row of numbers indicate the possible number a person could enter when listing things in the order they presently rely on each option for information.. The remaining numbers in the cells indicate the number of times each item was chosen. The bold numbers indicate the item most often chosen as first, second, third, fourth and fifth choice with the corresponding percentage of the total.

	1	2	3	4	5	√
Television	**10 (40%)**	**5 (24%)**	4			7
E-mail	5	2	4	**3 (33%)**	1	4
Pager	2	2	3		1	5
Friends/Family	4	4	**7 (29%)**	2	1	4
Cell phone	2	1			**2 (33%)**	1
Neighbor	1	2	5	**3 (33%)**	1	2
Other	1	**5 (24%)**	1	2		1
Totals:	25	21	24	9	6	24

Question #5– If more systems were set-up to give you information in an emergency, which ones would you be interested in? Please list in order 1, 2, 3…what you would want to use. If not interested, just leave it blank.

In the table below, the choices given are in the first column. The top row of numbers indicate the possible number a person could enter when listing things in the order they would chose to rely on them if they were available. The remaining numbers in the cells indicate the number of times each item was chosen. The bold numbers indicate the item most often chosen as first, second, third, fourth and fifth choice with the corresponding percentage of the total.

	1	2	3	4	5	6	7	8	√
Television	2	**11 (58%)**	7						3
E-Mail	7	1	**11 (31%)**		1				7
Pager one-way	1	1	5	2	**3 (27%)**				2
Pager 2-way	**10 (29%)**	2	5		1				8
Friends/Family	3		2	**6 (33%)**		1			2
Cell phone	2	2	1	2	2		1		1
Neighbor	1		2	2	2			1	1
911 calls your TTY with info.	5	2	2	2	1				3
NOAA Weather Radio	2			4	1				3
Other	1		1						
Totals:	34	19	36	18	11				30

Northeast Coverage 931.8875 Mhz
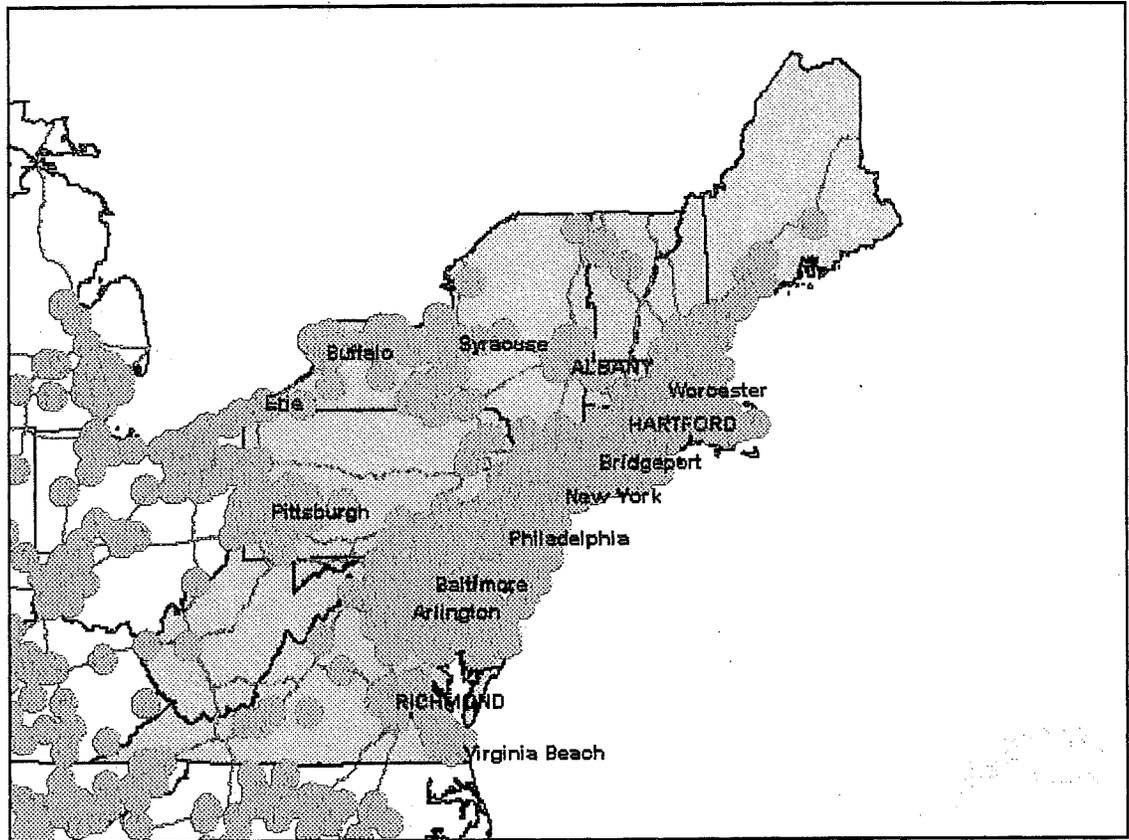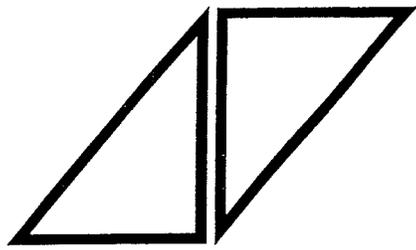
NORTHEAST PAGING

"The Maine Owned Paging Company"

Coverage Map   *Channel YP*

Millinocket

Calais

ME

Bangor

Burlington   Berlin   Augusta

VT   NH

Rutland   Hanover   Portland

Concord

Manchester

MA

Boston

Springfield

Hartford   Providence

CT   RI

Bridgeport
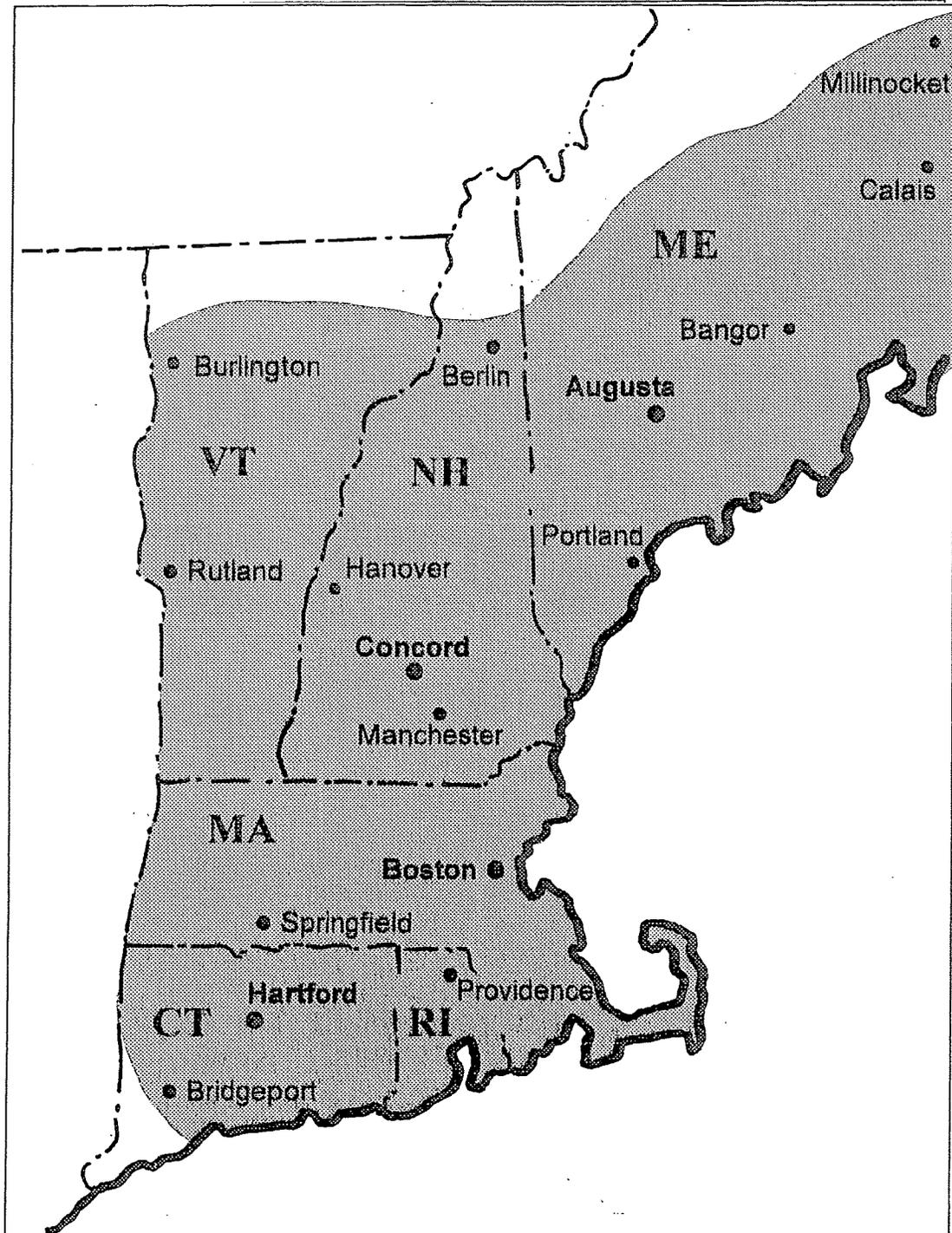
Geographic and atmospheric conditions can affect pager reception

1.800.564.1199
nepaging.com
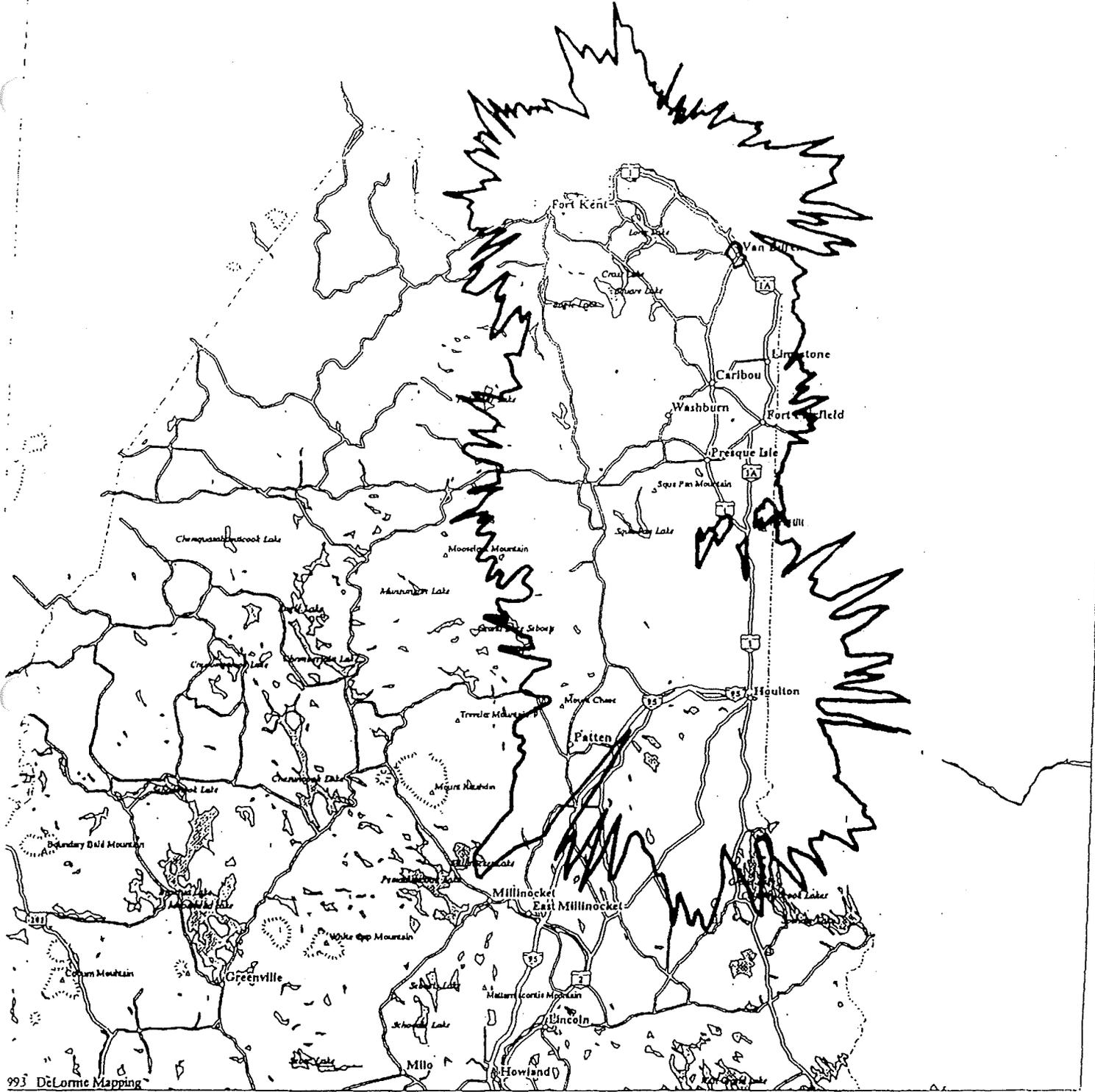
LEND

Population Center	Interstate Highway
Town, Small City	US Highway
Hill	Land Mass
Interstate, Turnpike	Open Water
US Highway	Contour
State/Prov Boundary	
National Boundary	
Major Street/Road	
State Route	

Scale 1:1,400,000 (at center)

20 Miles

50 KM

Aroostook Paging, Inc.

Area Wide Coverage Map

Radio coverage predictions shown above are estimates only. Actual coverage may vary according to terrain, weather, and foliage
This map should be used to obtain a general idea of the expected amount of coverage and it should not be assumed that it is exact.

SUMMARY of INFORMATION on ALERTING SYSTEMS from OTHER STATES

STATE	DEAF/HOH SYSTEM	DESCRIPTION/RATIONALE	FUNDING	SOURCE
Alabama	Nothing (possible crawl)	Local captioned news	Individual stations pay	DoD survey
California	Yes, Emergency Digital Information Svc	Supplement to EAS. 14 zones in state, Wide access (per EMA source) Per DoD source: Just use captions on new reports, not always there.	Service of State Office of Emergency Svcs. TV stations pay FAQ sheet attached	EMA DoD
Delaware	No	No specific system for deaf; open and closed caption on all "basic TV channels and mini-maps during dangerous weather on some TV channels.	TV stations pay	DoD
Florida	Florida Telephone Relay Grass roots groups organizations for grants. EPZ	Alerts & warnings to registered and participating hearing impaired Also maintain facilities, & offer equipment loans. Received grant funds to provide pagers. Local 911 activates. Utilities provide warning eqpmt for hearing impaired	State statute EMPA grant funds Nuclear facility	EMA
Illinois	TV captions & minimaps PACE First Alert Digital pager svc	Distributing First Alert w/vibrate & light flash in their counties Expansion of svc used by emergency personnel	Co Emergency Mngmnt received grants to purchase eqpmnt & gave to PACE 2 towns offer free 1 has private co-$14 per mo.	DoD EMA

STATE	DEAF/HOH SYSTEM	DESCRIPTION/RATIONALE	FUNDING	SOURCE
Indiana	TV captioning	Severe weather warning (Ch 8), 30 min captioning in AM and Evening news	Key Bank grant	DoD
Kansas	Task Force	Kansas City DHH is working w/TV station on emergency weather warnings . Working on a state wide roundtable for discussions		DoD
Minnesota	No, but "positive working relationship"	Some 911 centers have pagers that were given to public. Not all covered. Working with Emergency Management. Fairbault has 9-1-1 dispatcher page text message for public safety watches, etc. Presentation to TV people resulted in more scrolls, maps and real-time captioning.	Individuals buy pagers & subscribe to free svc thru dispatch center.	DoD EMA
Montana	Not really	Open caption across bottom of local TV channel		DoD
New York	Sparse	Some areas have E-911, but not sure of accessibility, Closed Captioning, crawl space on major channels		DoD
Oklahoma	Yes	Interpreter joins Governor on tours of disaster areas, and on request in Disaster Recovery Centers (Me offers DRC service in Disaster). Emergency Notification System through alphanumeric pager.	Hazard Mitigation Grant for software licensing plus some for educating those using the pager in its use, understanding the given & actions to take.	EMA

STATE	DEAF/HOH SYSTEM	DESCRIPTION/RATIONALE	FUNDING	SOURCE
Pennsylvania		Some training on 911 use. Captions on news reports	TV station?	
So Carolina	No system in place	Through TEDP (Motorola T-900 two way pager or visual weather alert system free to qualified applicants. Reduced rate for client pager fees. Program administered by School for Deaf & Blind Outreach Svcs. Pilot project purchased 100 pagers and close to 70 are still at out reach services. Much of State doesn't have pager coverage).	Service plan is individual cost. Pager is SCD Outreach TEDP & Captioning thru Public Svc Commission	DoD
Tennessee		Captions and mini maps during dangerous weather.		
Vermont	Yes in So VT only	The Signaler (obtains information from radio in emergency, uses strobe light, etc and captions on radio type receiver. Still in rough draft)	Vermont Yankee. Distributed by VCO:	DoD
Washington		Reecom strobe unit connects directly to NOAA Weather Radio. Person then tunes to TV channel for EAS alert. Page Update also provides text of EAS.		

Acronyms:
PACE Person Assuming Control Environment   DoD   Division of Deafness (Dept. of Labor)
DRC   Disaster Recovry Center   EMA   Emergency Management Agency (Dept. of Defense)
EPZ   Emergency Planning Zone (related to nuclear power plants)
EMPA Emergency Management Planning and Assistance
TEDP Florida agency funded through the Public Service Commission
EAS   Emergency Alert System

7/31/03

COMMUNITY • COMMUNICATION • COMMITMENT

MAB

MAINE ASSOCIATION OF BROADCASTERS

BACKGROUND on the EMERGENCY ALERT SYSTEM

Genesis

The current Emergency Alert System, or EAS, has its origins in the 1950s-era CONELRAD system, which was designed to allow the President to use the radio broadcast system to warn of incoming Soviet missiles. Under CONELRAD (an acronym for Control of Electromagnetic Radiation, evidencing the system's Cold War-era genesis), the federal government enlisted the cooperation of high-power AM radio stations to create the Primary Entry Point (PEP) network. Upon receiving a national alert, all non-PEP stations were required to notify listeners or viewers to tune to a PEP station, and then to go off the air. ("This is only a test. If this had been an actual emergency, you would have been instructed where to tune in your area.")

In the 1960s the system was reconfigured as the Emergency Broadcast System, or EBS, and its use was permitted on a voluntary basis for state and local emergencies such as severe weather situations. In the late 1990s, the Federal Communications Commission mandated that EBS, an analog-based system, be upgraded to a digital Emergency Alert System and expanded to cable TV. The federal government did not provide any funding for this mandate; the costs of conversion from EBS to EAS were borne solely by broadcasters and cable system operators.

Purpose

The purpose of EAS is to warn of: (1) sudden, unforeseen situations (2) which pose an immediate threat to life or property and (3) which require the public to take immediate action. All 3 elements should be in place before the issuance of an EAS alert is considered. For example, an EAS alert would probably not be issued for a hurricane whose path can be predicted and reported several days in advance; but an alert may be issued for a coastal evacuation because of the storm surge at sea that often accompanies a hurricane.

Limitations and Drawbacks

Incomplete video crawl: Because of its genesis in the radio-based CONELRAD system, EAS is primarily an audio system. The accompanying captioned "crawl" that runs on the top of a TV screen does not contain the entire emergency message; it contains only the digital coding "signature" that indicates who issued the alert, what kind of an alert it is, what areas it covers, and when the alert expires. Since the intent of the EBS-to-EAS conversion was to automate the issuance of alerts, there is currently no way around this limitation in the present system, since there is no way to digitally encode the audio message to make it automatically become part of the video "crawl."

Duration: Because of the configuration of EAS receivers, an EAS audio message is limited to two minutes. This inherently limits the amount of information that can be conveyed in an EAS message, though it is adequate for most emergencies such as weather-related incidents.

The "daisy chain": Like its predecessors, EAS relies on a "daisy chain" of broadcast stations to relay an alert. This is not a problem in Maine, where Maine Public Radio (MPR), which has a network that reaches statewide, is the primary EAS station, and all other radio and TV stations are required to monitor one of the MPR stations for alerts. It is a huge problem in places like Texas, however, where the relay chain can encompass as many as 8 or 10 radio stations with overlapping signals. If any one station in the chain fails to receive or relay an alert, it is not received by the stations "down the chain." Similarly, such large relay chains increase the time required to issue an alert.

Lack of coordination among government officials: While the Federal Communications Commission (which is part of the Department of Commerce) issues the mandates and the rules that govern EAS, the system is also used by the Federal Emergency Management Agency (now part of the Department of Homeland Security), which governs the Primary Entry Point network, and the National Weather Service (part of the National Oceanic and Atmospheric Administration within the Department of Commerce), which has its own NOAA Weather Radio network, as well as state and local officials. No one agency has complete authority over EAS to ensure its security, reliability, and proper operation.

Potential Solutions

In the wake of the 9/11 terrorist attacks, the EAS system is coming under increased scrutiny. Most efforts to improve the system are playing out at the state level, often at the instigation of state broadcaster associations. The Maine Association of Broadcasters is investigating numerous hardware- and software-based solutions aimed at improving the security and reliability of EAS, as well as overcoming the video-crawl problem.

###

LD 397 Study Group
September 11, 2003

Phing abt for list

Work Sheet

Rep. Moody

SOLUTION	ADVANTAGES	PROBLEMS	COST	HELP POSSIBLE
WIRELESS E-MAIL TRANSCEIVERS	Can receive all Emails.	No one network covers entire state	Skytel Blackberry $55 plus Monthly svc =$22.*** T-Mobile network = $30, Devices $100-$150?	TEP expansion?
2 WAY PAGERS	Can be programmed to pick up EAS and Internet warning systems. Are portable	Cost. Minimal coverage presently in Maine (Portland area, Biddeford-Saco, Augusta-Hallowell)	Pagers: $99 refurbished $200 new Plan 1 $9.95 for 125 messages/mo Plan 4 $29.95 for 2,000 weekday messages, 1,000 weekend messages per month**	Telecommunications Equipment Program (TEP) expansion Negotiations w/major suppliers for large purchase discount
PAGERS	Portable, warning can be received almost anywhere thru NOAA program	Lack of activity equates to lack of use. Won't be with client when needed	Equipment: $70, $75 $85 plus tax Service, $13 a month** Service listed as $$5$ a month elsewhere	TEP Expansion?
WEATHER RADIO	Good coverage. Now carries all emergencies thru MEMA contract	Very brief messages, Car and boat adapters available in some models	$69.95 with a flasher & one word description on type of emergency*	TEP Expansion?
CAPTIONING	Acceptable to public and viewer	High cost. Lack of portability. Changes in TV industry to Digital TV in 2006 will affect this.	Industry cost of $125 an hr.	Business sponsorships for live captioning. Digital TV may offer lower cost for captioning Voice recognition captioning?
INTERNET	Available at home, limited availability at schools and office	Cost of computer. Need for education on computer Sign up for program. Quality of program.	After equipment. Purchase, Internet access monthly fee	State internet help line. Education on checking sources used for information
REVERSE 9-1-1	Notification for homebound	Limited towns use in ME. Must subscribe for service Must be at home		
PERSONAL CONTACT	Formalized personal network Neighbors, Citizen Corps, etc	Musts develop relationships Transient society		Public relations Increase of education Relationship building

***Usable in Portland, Lewiston-Auburn, Augusta & Bangor. This is a late entry thanks to John Dunleavy. I'm not clear on which devices compatible w/ which systems…

*Midland Industries Model 74-200. Less expensive models may only notify something is happening without any information.
   Also HomeSafe Model 2000 HS $79.95
Harris Communications Weather Alert Radio with Vibrator SC-WAV $139.95
**Information source: Northeast Pager . ($29.95 for 2,000 weekday messages, 1,000 weekend messages). This doesn't coincide with info from last meeting where I need clarification (
pricing.