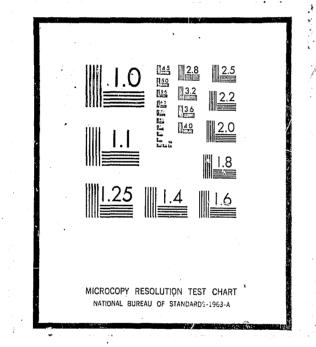
5/12/76

Date filmed,

NCJRS

This microfiche was produced from documents received for inclusion in the NCJRS data base. Since NCJRS cannot exercise control over the physical condition of the documents submitted, the individual frame quality will vary. The resolution chart on this frame may be used to evaluate the document quality.



Microfilming procedures used to create this fiche comply with the standards set forth in 41CFR 101-11.504

Points of view or opinions stated in this document are those of the author(s) and do not represent the official position or policies of the U.S. Department of Justice.

U.S. DEPARTMENT OF JUSTICE LAW ENFORCEMENT ASSISTANCE ADMINISTRATION NATIONAL CRIMINAL JUSTICE REFERENCE SERVICE WASHINGTON, D.C. 20531 0 KÅ

POLICE/PUBLIC CONTACTS INVOLVING HEARING, SPEECH AND LANGUAGE DISORDERS

Commission on Peace Officer Standards and Training

FOREWORD

This publication examines the peace officer's contact with citizens having hearing, speech and language disorders. It was developed to provide a training source to aid law enforcement in recognizing and communicating effectively with these people. The publication can be used as either a handout or an aid in developing roll-call training material. The publication will also dispell common myths associated with people having hearing, speech and language disorders.

The publication, developed by a committee of individuals representing the Los Angeles Unified School District, the Los Angeles County Superintendent of Schools, and the California Department of Education, was prepared and reviewed by Senior Consultant Donald L. Meyers, Center for Police Management, Commission on Peace Officer Standards and Training. The idea for the publication was formulated in late 1973 by Rebecca Kahn, Program Teacher Consultant, Los Angeles Unified School District, who identified the need to acquaint law enforcement personnel with the problems of people with hearing, speech and language disorders.

POST wishes to express its appreciation to Rebecca Kahn, and to the following committee members for granting permission to publish their document:

Ellery J. Adams, Consultant, Deaf and Severely Hard of Hearing Office, Los Angeles County Superintendent of Schools

John Aronovici, Coordinating Teacher, Deaf and Hard of Hearing Program, Los Angeles Unified School District

Dolores M. deLavallee, Program Specialist, Speech, Language and Hearing, Los Angeles Unified School District

Esther Herbert, Supervisor, Speech and Hearing, Los Angeles Unified School District

Dr. Victor P. Garwood, Senior Education Audiologist, Los Angeles Unified School District

Carl Kirchner, Consultant in Education of the Multihandicapped, California Department of Education

Mary Ann Mallis, Coordinator, Deaf and Hard of Hearing Program, Los Angeles Unified School District

Julius C. Spizzirri, Consultant in Education of the Deaf and Hard of Hearing, California Department of Education

It is hoped that this publication encourages the development of further training in hearing, speech and language disorders for not only the peace officer, but for those with communication disorders.

BRADLEY W. KOCH Technical Services Division

April 3, 1975

POLICE/PUBLIC CONTACTS INVOLVING HEARING, SPEECH AND LANGUAGE DISORDERS

During a peace officer's career, he may occasionally come into contact with persons who have communicative disorders. These include:

Hearing

- May not hear speech at all. Α.
- May hear only partially. в.

С. May not speak or speak clearly.

Speech and Language

- A. May not speak clearly.
- May not answer appropriately. в.
- с. May have inappropriate facial expressions or other inappropriate movements.

An individual may have one or a combination of these disorders. In addition, exaggerated or uncoordinated movements may accompany any or all of the communicative disorders. Any stress situation, such as being stopped by a peace officer, may aggravate any of these conditions.

Responses of some of these persons, unfortunately, have been confused with those of persons under the influence of drugs or alcohol. In addition, attempts to produce identification indicating a communication disorder have been confused with reaching for a weapon. Fortunately, with modern rehabilitative techniques, many persons with communicative disorders are capable of full participation as contributing members of their communities. They work, shop, drive cars and function in every walk of life.

In order to give peace officers an increased awareness of the variety of responses that may be encountered from persons with hearing, speech and language disorders, the following are some common examples:

- 1. Peace Officer: "Let me see your license."
 - Person: May touch his ear and shake his head "no," indicating may also reach for a pencil and paper to write a a new position for improved lip reading.

Explanation: Hearing Impaired

deafness, or may nod his head "yes" but does not produce his license because he has not heard what has been said. Driver may watch officer's lips instead of his eyes. He response, turn up his hearing aid or attempt to move into

2.	Peace Officer: Gives a command.
	Person: Does not respond or obey comma
	Explanation: Language Impaired or Hear or all of the Speech and
3.	Peace Officer: "How fast do you think
	Person: To my friend's house.
	Explanation: Language Impaired or Hear
4.	Peace Officer: "Walk over to the wall.
•	Person: May walk the opposite way beca has understood is the word "wa
	Explanation: Language Impaired or Hear
5.	Peace Officer: Ask person to walk a st
	Person: Moves in a random fashion.
	Explanation: Hearing Impaired with bal Cerebral Palsied.
6.	Peace Officer: Asks a question.
	Person: Answers appropriately. Speech labored and/or sounds like the person.
	Explanation: Speech and/or Language Di
7.	Peace Officer: Asks a question.
	Person: Answers may be difficult to un be muffled, garbled, rapid. (omitted and substituted or dis
	For example: If there are sound substant could sound like "yewoho
	Explanation: Speech Disorder.
8.	Peace Officer: Asks a question.
	Develope Augurer and the let hat more

Person: Answers appropriately but may hesitate, pause, block or repeat sounds. Speech may be accompanied by facial grimaces and inappropriate body movements.

Explanation: Fluency Disorder (Stuttering, Cluttering).

and.

ring Impaired. Any Language Disorders. you were going?" ring Impaired. 11 ause the only word he alk." ring Impaired. traight line. lance problems or h may be indistinct, at of an intoxicated isorder. nderstand. Speech may Certain sounds may be storted. itutions, "telephone"

- 9. Peace Officer: Asks a question.
 - Person: Answers appropriately with inappropriate laughter. Exhibits the inability to control volume and/or body movements. May exhibit pitch breaks, monotone or unusually high or low pitch. Speech may sound mechanical or hollow.

Explanation: Cerebral Palsy.

- 10. Peace Officer: Asks the person to get out of the car.
 - Person: Demonstrates poor balance and coordination, uses unusual or excessive gestures, exhibits purposeless jerky movements, tremors or shaky movements.
 - Explanation: Cerebral Palsy, Hearing Impaired, and/or all of the Speech and Language Disorders.

-3-

IMPAIRED HEARING

BASIC FACTS ABOUT DEAF PEOPLE

Almost all deaf adults drive cars. In the United States there are approximately a quarter million licensed deaf drivers.

Deafness cuts across every level of society. Some people are born deaf while others lose their hearing after they have developed speech and language. Hearing losses range from mild to severe. Individuals with a severe loss can only hear loud, low frequency noises. The basic handicap of deaf people is their inability to communicate effectively with the hearing world. Nearly all deaf people can speak, but because they can not hear their own voices, their speech is 'not always intelligible to the layman.

Communication

1. Speechreading (lip reading)

The best speechreaders in a "one to one" situation under ideal conditions only speechread about twenty-six percent of what is being said. Only one word in four can be read from the lips with a degree of accuracy by the skilled speechreader. Half the sounds are ambiguous to sight even when known, and ten, including four vowels, do not appear on the lips at all. Sixty percent of English words look exactly like some other word on the lips. For these reasons, be sure your face is well lighted when communicating with a deaf person.

2. Writing

Deaf persons may have poor writing and reading ability. If the situation demands the use of a pad and pencil, simple words and short sentences should be used. It is important to communicate the reason for being questioned, detained, or arrested.

3. Speech

Persons born deaf do not hear normal speech sounds and therefore they will not learn to speak unless taught. Most deaf persons have had many hours of speech instruction, yet, they still may not speak clearly, if at all. The term "deaf and dumb or deaf mute" is incorrectly used to describe them, since many are able to speak though not always intelligibly. A hard of hearing person or a person who has lost his hearing later in life will have better speech than a person born deaf.

4. Sign Language

The sign language most often used by deaf persons in the United States is called the American Sign Language or Ameslan. It is a language of its own, having its own grammar and sentence patterns. In general, signs stand for <u>concepts</u> or ideas. A sign may or may not stand for an English word. Finger spelling is used to supplement sign language; each letter of a word is spelled out as in spelling names, etc. Unless you are highly skilled in using sign language with the deaf, use of the key signs presented in this document, along with speech reading and writing, may be helpful.

Ì

FIRST ENCOUNTERS

Most contacts between deaf persons and the police occur during a traffic stop. In most situations, it will not be difficult to stop a deaf person, since he is more visually aware of his surroundings and is more likely to SEE you than a hearing person. In most situations, he will indicate his deafness by pointing to his ears, or shaking his head.

You may notice him reaching for the glove compartment, under the seat, or into his coat or pants pocket for paper and pen. This may appear to the officer as though the driver is looking for a weapon. Understanding the problems experienced by peace officers, a public information effort aimed at educating deaf persons to remain seated with both hands on the wheel has been mounted by individuals and organizations interested in deaf persons.

You may also come into contact with deaf persons who are the victims, witnesses or suspects in a criminal case. A person who does not answer you or who does not obey you may not be refusing to cooperate; HE MAY NOT HAVE HEARD YOU.

A deaf person may exhibit a poor sense of balance after he has been sitting for any length of time in poor light. Poor balance may resemble the effects of alcohol or drugs.

During a traffic stop or investigation, a deaf person has the right to know why he is being stopped or detained. He has the same options for bond in a traffic offense. In an accident or other incident, his rights must be made available to him.

When conducting an investigation, position yourself to include the deaf person in the conversation. The upper portion of the body should be visible for the observation of facial expressions and body movements. Occasionally a person will attempt to fake deafness. A few minutes of observation will probably enable you to detect the difference. The difference is that a deaf person tries to be aware of what is happening around him by watching every facial expression and movement, while a person faking deafness consciously attempts to ignore visual clues. In all cases extreme caution must be exercised until the deafness can be established.

-5-

THE MIRANDA WARNINGS TO SUSPECTS IN CUSTODY

To meet the requirements of the Miranda decision a deaf person must understand the warning. To achieve this, show him the warnings in print and indicate in writing that these warnings apply to anything he may say or write. The suspect should understand that he may contact a family member and/or an attorney. Departmental directives should be followed and it is suggested that the written records of your conversation with the deaf person should be retained.

TELEPHONE CALLS

If a deaf person taken into custody is entitled to make a phone call, but can not make that call because of his deafness, it may be necessary for the police officer to make the call. Some deaf persons have access to and use teletype machines for communication. If the police station is so equipped, it may be advisable to make the teletype available for the deaf person's use. Hopefully, in the future, this equipment will become less expensive and be purchased by more individuals and police headquarters.

INTERPRETERS

Interpreters are skilled persons who can communicate with the deaf by sign language. In California, many of them are members of a professional organization. However, others equally skilled may not be members. Some resources are listed at the end of this document. It would be advisable for every police station to have on hand a list of interpreters who are available in the locality.

SPEECH AND LANGUAGE HANDICAPPED

Speech and language handicapped individuals comprise the largest atypical group which you, the Peace Officer, will encounter in your daily round of activities. This population ranges from persons totally incapable of oral communication to those with minimal speech and language handicaps. Their speech may or may not be intelligible. They may or may not be able to understand you. It should be noted that even people with no speech and language deficits may experience some deterioration of communicative abilities under stress.

Speech and Language Disorders, to the Speech Pathologist, commonly include the following:

I. Articulation Disorders

This person's speech is characterized by substitutions, distortions and/or omissions in sound production. This defect is not to be confused with mispronunciation or dialects.

EXAMPLE Sound Substitution: "I wath not threeding." for "I was not speeding."

"Whez a yewoho?" for "Where's the telephone?"

Sound Distortion: Individual produces the sound but not clearly as a slushy /s/ sound. (May sound like someone who's been drinking.)

Sound Omission: "Eh I aw uh a-i-en." for "Yes, I saw the accident."

As illustrated above, speech may range from intelligible to unintelligible depending on the number, consistency and type of errors.

II. Voice Disorders

This person's voice quality may be characterized by harshness, hoarseness, stridency, breathiness, or nasality. Pitch may be too high, too low, or variable. Rate may be too slow or too rapid. Volume may be too loud or too soft. The most extreme example of a voice disorder is total lack of voice, usually the result of surgical removal of the larynx (voice box).

This person may learn to use a substitute form of speech but more often will use a battery operated appliance held just under the chin. This appliance usually will be carried in a purse or trouser pocket. This instrument produces metallic, monotonous, robot-sounding speech, which may be disconcerting to both the speaker and the listener.

III. Fluency Disorders

This disorder has been called by many labels such as stuttering, stammering and cluttering. This speech may be characterized by repetitions, prolongations, hesitations, and unvocalized intervals. Moreover, this speech may be accompanied by facial grimaces, jerky body movements and excessive sweating. This person's speech may range from total fluency to total inability to produce sound.

Delayed responses may be misinterpreted by the listener as an unwillingness to respond to the officer's questions. Responses may be inappropriate due to the speaker's temporary inability to produce the desired words.

EXAMPLE: "I.....I.....Oh well, I.....ah..... "I was not.....ah.....s-s-s-speeding."

IV. Language Disorders

The Speech Pathologist is concerned with disorders of both expressive and receptive language. Language Disorders are not to be confused with language patterns of foreign born or mentally retarded persons.

Expressive Language Disorders: Disorders of verbal expression include problems in vocabulary, grammar, length and appropriateness of response, and organization of thought. This may be evidenced by little or no speech, delayed responses, irrelevant/bizarre responses, incomplete responses, difficulty in word finding, and/or incorrect sequencing of words.

EXAMPLE: "I don't have....of, you know....wallet, no, dresser....you know, on my dresser, I don't have it....left-purse, no wallet, oh hell!"

<u>Receptive Language Disorders</u>: These may be characterized by inability to comprehend speech including directions and questions. Processing of information is difficult for these people because of an inability to remember, associate, or make sense out of what is heard. This may be displayed by an inappropriate response, confused look, request for instructions to be repeated, laughter, or shrug of the shoulders.

EXAMPLE: "I live at 12.....(laughter)...What did you say?"

Causes of speech and language problems include: neurological dysfunction; damage to the speech and language areas of the brain due to injury, stroke, medication, or birth; damage to the speech musculature; mental retardation; emotional disturbances; and learned behavior.

Mentally retarded adolescents and adults often demonstrate a variety of speech and language problems. Although there is a higher incidence of speech defects in the mentally retarded, the speech and language defects do not differ in kind from those of a non-retarded speech defective population.

- EXAMPLE: One particular communicatively handicapped person who may exhibit all or some of the previously mentioned deficits is the severly brain damaged cerebral palsied individual who has:
 - difficulty producing sounds due to tongue muscle а. damage.
 - Ъ. a harsh, loud voice with marked pitch breaks, fluctuations, and prolongation of sounds.
 - labored speech. c.
 - fragmented and inappropriate responses due to d. inability to organize thoughts and lack of understanding the speaker's questions.
 - e. speech accompanied by jerky body movements and facial grimaces.

Variations in learned language usage reflect cultural, social and environmental differences. Such language, although non-standard, serves the purpose of communication, and should be recognized as different but not necessarily defective, and should not be confused with speech and language disorders.

SUMMARY

It should be emphasized that some of these speech and language handicapped persons might be easily misidentified as being drunk, under the influence of drugs, non-cooperative, or disrespectful. Some may try other means of communicating, such as gesturing, writing on a pad, using a communication board, enlisting the aid of a companion, turning on or getting an appliance (e.g. artificial larynx), or reaching to produce some method of identification of their problems such as a medic-alert bracelet.

Normal speech and language under stress situations can change or deteriorate. The speech and language handicapped person's communication also can deteriorate and they may be doubly penalized as they are not only anxious about the situation but are also anxious or fearful they may be misunderstood or not understood at all. For example, the stutterer who may communicate adequately even while stuttering may not be able to get a word out. A post-stroke patient who may speak only in short sentences may do nothing but swear under stress which will further place emotional strains and/or penalties on him.

Some individuals with communication handicaps may find it necessary to reach for and use various types of prosthetic devices such as a hearing aid or artificial speech device. These devices may be located in a pocket, under clothing, in a purse or behind the ear. Consequently, any movement for such a device may be misinterpreted. Other materials the person may reach for could include a pencil and paper, a flashlight to assist in better speech-reading, a card, or a medic-alert tag to identify their communication handicap.

By recognizing the problems that may occur when contacting people with communicative disorders, law enforcement officers will be in a better position to more effectively relate to the needs of these handicapped citizens.

RESOURCES

Before the need arises, each local police agency should identify the resources available in their area.

- 1. Schools and Educational Program for the Handicapped in your local area. Contact the Director of Special Education for the school district or County Schools office.
- 2. Associations of Interpreters for the Deaf. There are often local chapters.
- 3. Local and State Associations, Clubs, and churches for the Deaf.
- 4. Hospitals or College and University Speech and Hearing Clinics.
- 5. Special Education Departments of Colleges and Universities.
- 6. State Department of Vocational Rehabilitation--Local office counselors for the handicapped.
- 7. State Consultant for the Deaf--Northern California 721 Capitol Mall, State Department of Education Sacramento, CA 95814 (916) 445-3561

State Consultant for the Deaf--Southern California 217 W. First Street, State Building, Room 803-H Los Angeles, CA 90012 (213) 620-2990

- 8. State Consultant in the Education of the Speech & Hearing Handicapped 217 W. First Street, State Building, Room 803-H Los Angeles, CA 90012 (213) 620-2990
- 9. National Center on Law and the Deaf
- 10. Northern California and Southern California Directory: State Department of California Special Education Program for Deaf and Hard of Hearing Children

DISCUSSION QUESTIONS

The following questions and their discussions during roll call training may provide you with a greater awareness of this large population in our society.

- 1. Why should Peace Officers be aware of speech and language problems?
- 2. What can happen to speech and language under stress situations?
- 3. How can an officer identify a person who has difficulty understanding questions or directions?
- 4. What are some alternative methods to speech for communicating?
- 5. What behaviors are exhibited by people who have difficulty expressing themselves?
- 6. Discuss what a hearing aid can do (*)
 - ... For most deaf individuals the hearing aid provides assistance ranging from simple awareness of loud sounds to limited comprehension of speech.
 - ... Some hard of hearing individuals can understand conversation.
- 7. Once you realize you are dealing with a person with communication problems, what are some of the things you may have to consider in facilitating communication?
 - ...Rate of speech
 - ...Complexity of language
 - ... Speaker's position
 - ... Lighting
 - ... Mechanical devices
 - ... Outside assistance
 - ... Emotional effect
- 8. Discuss the different techniques in communicating with the deaf/hard of hearing, speech and/or language impaired persons in relation to:
 - ... Signaling them to stop
 - ... Asking for drivers license
 - ... Following directions
 - ... Notifying of rights
 - ... Watching for movement and balance problems

9. Demonstrate the following by using sign language (**)

- ...License
- ...Deaf
- ...Write
- ...Out

K. The second se Second sec

... Understand

10. Role play the following situations:

- A. Traffic stop of a deaf person after dark ... Lighting for speech reading
 - ... Position for communicating
 - ...Balance problems
- B. Approaching a person walking with an unusual gait ... Follows directions
 - ... Answers questions
 - ... Has facial grimaces or paralysis
 - ... Speaks intelligibly
- C. Inability to communicate with a person at the police station ... Paper and pencil ... Interpreter
- * It is suggested that either of the following records be ordered and played as a part of the discussion: "Getting Through" (Zenith) \$1.00, and/or "How They Hear" and Slides, Illustrations, and Teaching Manual (Gordon Stowe and Associates, P. O. Box 233, Northbrook, Illinois) \$15.00
- ** For additional signs refer to the suggested bibliography at the end of this document.

QUESTIONS

-14-

1. What special requirements do hearing impaired drivers have in California? 2. Do deaf drivers have higher accident rates? When are the services of an interpreter required? 3. 4. Do all deaf people use sign language? 5. How can a hearing impaired person use a phone? Do hearing impaired people ever have balance problems? 6. How much information can be read on the lips? 7. 8. Historically, the terms deaf mute and deaf and dumb have been used. Are they meaningful? 9. Do hearing impaired people have poor written language? If so, why? 10. Why do deaf people use their cars more often than hearing people? ANSWERS 1. In California, licenses of deaf and hard of hearing drivers require the use of both left and right-side rear view mirrors. 2. No, there is no significant difference between hearing impaired and hearing drivers. 3. An interpreter should be called when communication through oral or written means is impossible or the situation is more serious than a traffic stop. 4. No, most deaf people are familiar with the sign language, but not all are fluent in its use and others are entirely dependent on speech, speech reading, or writing. 5. Some hard of hearing people can use the telephone with an amplifier or their hearing aid. Others use a coding device or portable teletype. 6. Yes. Impairment of the hearing mechanism quite often affects the balance mechanism in the inner ear.

- 7. Under ideal conditions, twenty-six percent of what is being said could be understood.
- 8. No. The terms "mute and dumb" refer to the inability to communicate orally. Therefore, these terms do not apply to most deaf persons because their speech mechanisms function normally. Understandably, most deaf persons, who do communicate, object to the use of these terms.
- 9. Yes. Written language depends a great deal on hearing. Most deaf people have difficulty developing written skills and therefore, sentence patterns may be jumbled or incomplete, and words may be used incorrectly.
- 10. They are frequently unable to communicate via the telephone, therefore, they must use their car for ordering goods and services, making medical appointments, and conversing with friends.

-15-

,²¹¹. e

		GLOSSARY
-	CTNTED AT OT OCCAPY	
I.	GENERAL GLOSSARY	
	Communication:	Human communication man's interaction purpose of sending mation.
	Oral Language:	A symbol system for through speech that sender can understa
	Non-Verbal Communication:	Any means of expre- ideas or feelings
	Speech:	A motor act of pro sounds.
	Communication Disorders:	General term to in and hearing disord
	Speech Disorder:	Any deviation of s the range of accep given environment.
	Intelligibility:	The degree to whic understand the spe
II.	HEARING GLOSSARY	
	Deaf:	An individual who usually in both ea can not depend upo and understand spe Hearing may have b or at a later time
	Hard of Hearing:	A hearing loss in sufficient enough understanding spee
	Oral:	Communication thro that is understood
	Manual:	Communication by u fingerspelling and

1

-16-

.

cation is one method of tion with others for the nding or receiving infor-

em for expressing ideas h that both receiver and derstand.

expressing or conveying ings without speech.

f producing meaningful

to include speech, language, isorders.

of speech which is outside acceptable variation in a ment.

which the listener can e speaker.

who has a hearing loss, th ears, so severe that he d upon hearing to recognize d speech and other sounds. ave been lost since birth, time.

s in one or both ears, ough to cause difficulty in speech and other sounds.

through spoken language stood by others.

by use of sign language, g and gestures.

		المراجع ا	
II.	HEARING GLOSSARY - (Con	- (Continued)	
• •	Speechreading:	To understand spoken the use of lipreading of body movements and not possible to under through speechreading greatly in their abil	
۳	Amplification:	Hearing Aids-win the in glasses, and body clothing. The impro- varies greatly with individuals are able vertation.	
III.	LANGUAGE AND SPEECH GLC	CH GLOSSARY	
	Laryngectomy:	Surgical removal of because of cancer.	
	Fluency Disorders:	(Stuttering, Clutter rhythm and fluency o mittant blocking, re gation of sounds, sy phrases.	
	Articulation:	Production of indivi speech through movem tongue and soft pala	
	Voice Disorders:	Deviations in qualit which produce sympto excessive nasality,	
· · · ·	Language Impaired:	(Aphasia)Inability mation, or to expres possible brain lesio a result of a cerebr at birth.	
	Cerebral Palsy:	Paralysis or muscula to brain lesion.	
	Cleft Palate:	Congenital fissure o roof of mouth someti both sides of the an hard palate and lip.	
	Cluttering:	Rapid, nervous speed of sounds or syllabl	
		-17-	

spoken communication by preading, the observation ents and gestures. It is to understand everything ureading. Individuals vary eir ability to understand.

קיירא אין אייראין אייר

in the ear, behind the ear, id body aids worn in or under improvement of hearing with a hearing aid. Some re able to understand con-

val of the larynx--usually ncer.

Cluttering) -- Disturbance of mency of speech by intering, repetition, or prolonnds, syllables, words or

individual sounds in connected n movements of lower jaw, lips, ft palate.

quality, pitch and intensity-symptoms such as: hoarseness, ality, monotony and inaudibility.

ability to comprehend inforexpress information, due to a lesion. Can be caused as cerebral vascular accident

nuscular dyscoordination due on.

ssure of soft palate and/or sometime extends to one or the anterior part of the nd lip.

s speech marked by omission syllables.

1

BIBLIOGRAPHY

-18-

1. A Basic Course in Manual Communication

National Association of the Deaf 814 Thayer Street Silver Spring, Maryland 20910

2. Directory Issue

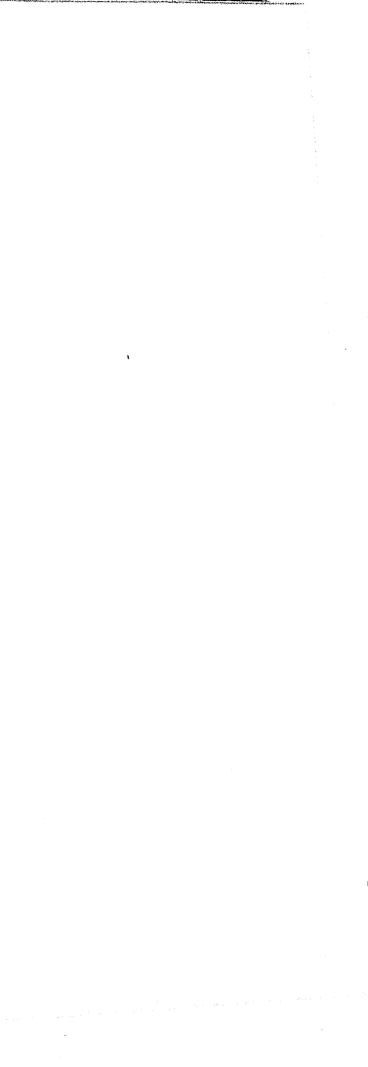
American Annals of the Deaf Lists education programs, resources, nationally and locally

American Annals of the Deaf 5034 Wisconsin Avenue, N.W. Washington, D.C. 20016

3. Directory Issue

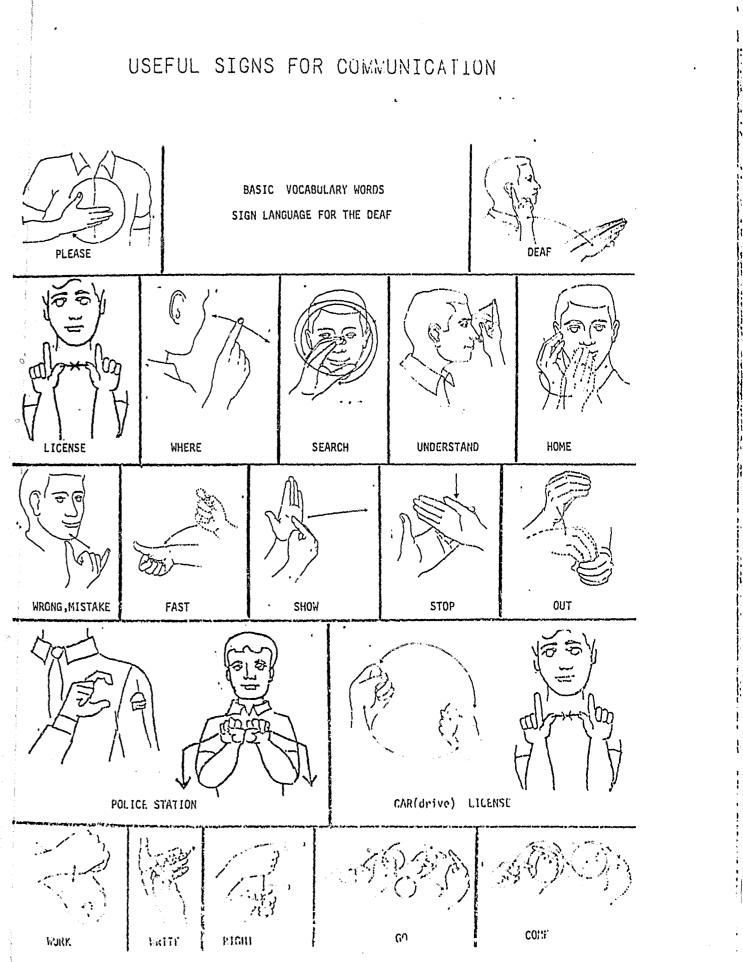
- 1000

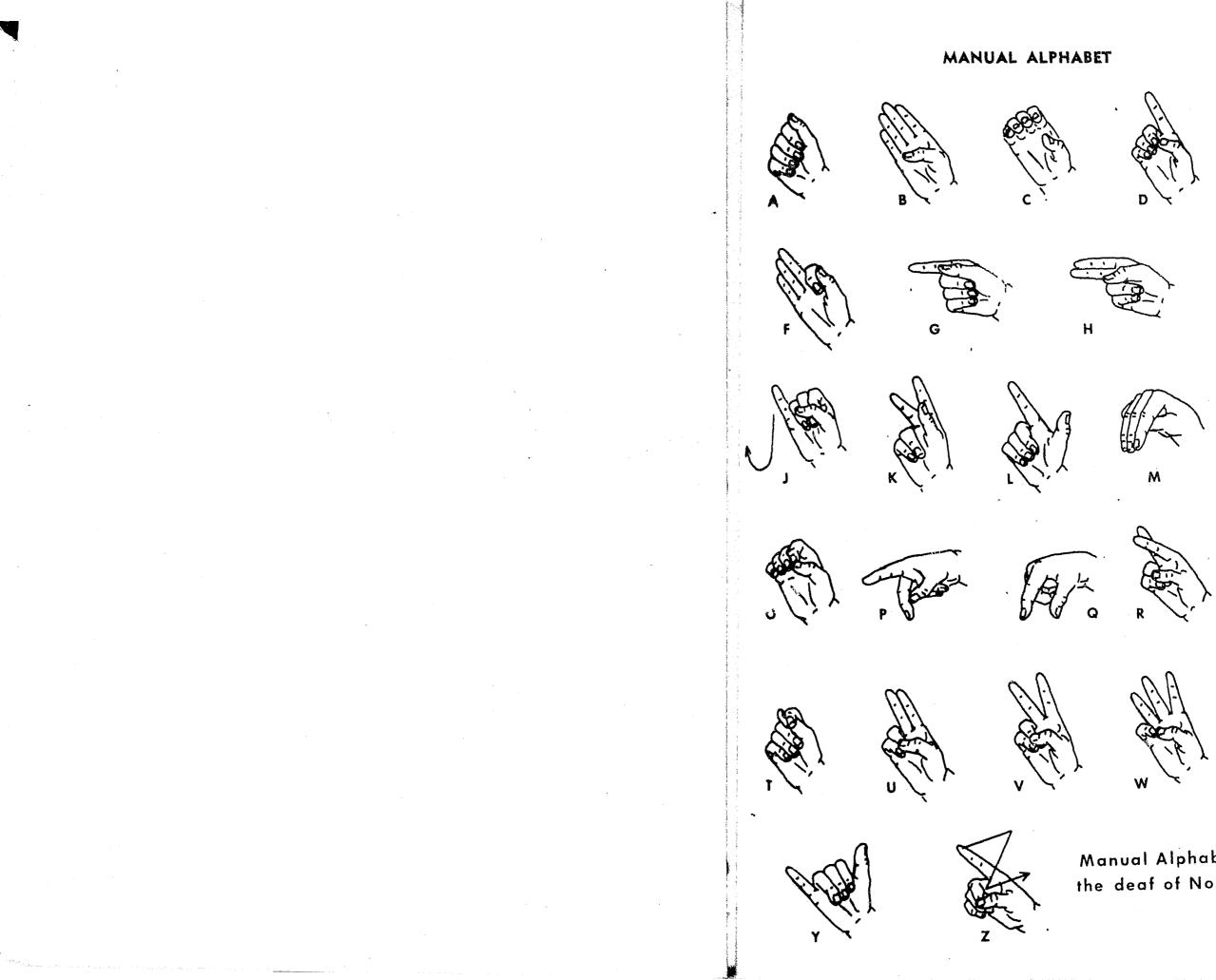
American Speech and Hearing 9030 Old Georgetown Road Washington, D.C. 20014





.















Manual Alphabet used by the deaf of North America.

G