

# PEOPLE WITH HEARING DISABILITY AND THE DEAF-BLIND AND THEIR PREPARATION FOR CIVIL PROTECTION

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## Abstract

*The article deals with the issue of preparation of people with hearing disability and the deaf-blind for civil protection. It is connected to a similar article, focusing on preparation of visually impaired individuals (see The Science for Population Protection 2/2010). The paper emphasizes the need of education and preparation of these population categories in case of the occurrence of any extraordinary event, eventually crisis situations; it evaluates a current approach of responsible authorities to preparation, it divides the individuals with the mentioned handicap, and also proposes acceptable ways of their preparation. It results from the author's experience with such involvement.*

## Keywords

*Deaf-blind, extraordinary events, handicap, hearing disability, preparing, protection of population.*

## INTRODUCTION

Preparation of persons with hearing disability and the deaf-blind for civil protection (rise of extraordinary events) should be both evident and in coherence with legal norms, and at the same time the claim of these persons to have the same possibilities as people without any handicap. However, such preparation under conditions of our state has not still reached the necessary level. There are several reasons for it, some were emphasized in the report with a similar issue – see [1]. With regard to newly defined threats also the preparation of persons not only handicapped should gain a new dimension which will correspond to the risk of the rise of these threats and their potential character in particular regions.

## 1 CURRENT APPROACHES AND PROSPECTIVE BASIS FOR THE SOLUTION OF THE PREPARATION FOR CIVIL PROTECTION

Based on the facts given in the introduction and also in details in [1], we can say that basically **no target complex and regular preparation of the people**

**with hearing disability or the deaf-blinds** (persons with dual sensoric handicap) **has not been carried out** on the territory of any region of the Czech Republic, and the situation in neighboring countries is similar. Professional literature – inland or foreign which would be at least a bit focused on mentioned preparation of persons with health handicaps is hard to find, methodology for this preparation is not available as well. More also in [1].

**Among basic starting points for solution of stated preparation we can encompass:**

- covering the responsibility of liable authorities set by legal norms, especially in connection with [2] organizing lectures focused on the rise of extraordinary events also for these handicapped inhabitants;
- provision for the relevant way of the preparation connected with the capability to communicate with these people as a basic prerequisite of their effective preparation requiring sufficient suitable materials in order to support this preparation in an instructed way, then in the form of self-study.

Covering the above mentioned liability – as the first starting point which undoubtedly corresponds also with the interest in organizing this preparation, has not been, in this paper, discussed. These aspects are for the focus of this article undoubtedly significant; however, they have been already discussed again in [1].

Covering the content of the second starting point can be seen as the core of this preparation. A major role here will be, first of all, the means of communication with this relevant category of inhabitants. A responding way of communication represents moreover also one of starting conditions of effective and successful course of preparation. This is even anchored in a **legal area** of our country – Act Moreover this act specifies certain definitions which are substantial due to their content to understand this field connected with the issue of the people with hearing disability and the deaf-blind.

The law says that **people with hearing disability** are people who have not been able to hear since their birth or they lost hearing before the development of spoken words or persons with complete or actual deafness who lost hearing after the development of spoken words, and persons with heavy ceruminous deafness who are not able due to the extent and character of a hearing defect to understand spoken words by hearing.

The law also specifies persons who are deaf-blind (some professional publications use also inversion term for these persons – blind-deaf; however, at present the term is unified and the term deaf-blind is used). **The deaf-blind** are persons with both hearing and visual disabilities of various level, type and occurrence time who due to the extent and character of both hearing and vision disabilities are not able to develop spoken words or communicate verbally. Preparation of persons with such disability will naturally require considerably more differentiated approaches in comparison to preparation of persons with “only” hearing disability.

**The deaf and the deaf-blind are entitled by course of mentioned law to:**

- using communication systems of the deaf and the deaf-blind;

- Education with application of communication systems for people with hearing disability and the deaf-blind [3].

By course of another law [4] children, pupils and students with health disabilities are entitled among others to using for free during education special textbooks and special didactic and compensation teaching aids provided by school. It means specifically that the deaf and the deaf-blind have the right to be educated through communication systems for the deaf and the deaf-blind – more again in [4].

Persons with hearing disabilities represent considerable percent of our society population. Their numbers and other data in relation to this category can be found e.g. in the release from the investigation of the Czech Statistic Office [5], elaborated in 2007. Both, the total **number of persons with hearing disability**, and the classification according to the cause of health disability etc. is given in Table 1. The extent of health disability based on the same investigation is given in Table 2. Given data, however, do not have to be quite accurate and final.

*Table 1*  
*The cause of health disability of persons with hearing disability*

Inborn	Caused by			Other	Not given	Total
	Accident	Illness	Old age			
13 779	2 619	37 634	13 954	1 604	5 110	74 700

Source: [5] with the author's modification

*Table 2*  
*The extent of health disability of persons with hearing disability*

Extent of disability					
Slight	Medium-heavy	Heavy	Extra heavy	Not given	Total
19 948	28 793	18 061	7 746	152	74 700

Source: [5] with the author's modification

Based on performed dépistage in recent years by the company LORM, the **number of the filed deaf-blind** was in the Czech Republic (data of 2010) 214, from that at present 113 persons use various social services [6]. Even if the given number of about two hundred persons is relatively very low (this number does not have to be the final number, though), it is the category of persons which will belong, regarding their handicap in case of an extraordinary event, to the most endangered.

## 2 COMMUNICATION SYSTEMS OF THE DEAFS AND THE DEAF-BLIND

The ability to communicate (especially a verbal one) is one of the basic human characters. Unfortunately the percentage of population is limited in this ability. **It is also known that persons with heavy or complete hearing disability have e.g. big problems with writing (more also in 3.3.2.). Understanding the text is on a very low level (functional illiteracy)** and these persons have to use for understanding other, mostly very specific communication systems which are able, to a certain degree, to eliminate this handicap.

### 2.1 Communication systems

Communication systems of the deaf and the deaf-blind are especially Czech sign language and communication systems based on Czech language. Czech sign language is a basic communication system of the deaf in the Czech Republic who themselves consider it the main form of their communication.

#### **Czech sign language:**

- it is a natural and full-value communication system formed by specific visual-movement means, e.g. shape of hands, their positions and movements, face-plays, positions of the head and the upper part of a trunk;
- it has basic attributes of a language, i.e. characters, system, dual structuring, productivity, originality and historical dimension;
- it is stabilized as long as lexical and grammatical aspect is concerned [3].

### 2.2 Communication systems emerging from the Czech language

Among the most common communication systems of the deaf and the deaf-blind emerging from the Czech language and at the same time anchored again in [3] it is possible, with their brief characteristics, to **include especially the following:**

*Sign Czech language* – it applies grammatical means of the Czech language which is at the same time articulated in a loud voice or without voice. Together with single Czech words the individual characters taken from the Czech sign language are shown by motions and positions of hands. Sign Czech language in taktil form can be used as a communication system of the deaf-blind who master the Czech language.

*Dactyl alphabet* - applies formalized and stabilized position of fingers and a palm of one hand or fingers and palms of both hands for demonstrating individual letters of the Czech alphabet. Finger alphabet is used especially for spelling of foreign words, professional expressions or other terms. Finger alphabet in taktil form can be used as a communication system of the deaf-blind.

*Visualization of spoken Czech language* – clear articulation of separate Czech words by mouth so as to enable or make easier the lip-reading of spoken

speech by persons who master the Czech Language and lip-reading prefer as means of their communication.

*Written record of spoken speech* – the transfer of spoken speech into a written form in real time. For the needs of the deaf-blind the written record is carried out by expanded letters or by Braille writing.

**Among less used then:**

*Lorm alphabet* – contact palm alphabet where individual letters are demonstrated by stabilized movements and contacts carried out on the palm and fingers of a hand of a message recipient.

*Dactylographics* – inscription of large block writing basically on the palm of a message recipient hand.

*Braille writing with application of taktil form* – enables to demonstrate letters of the alphabet by stabilized contacts on two fingers of a hand or on more fingers of both hands of a message recipient with a code system of Braille writing.

*Taktil lip-reading* - based on the perception of spoken speech by the help of touching the vibration of vocal cords of a speaker.

*Vibration method Tadoma* – based on the perception of spoken speech by the help of touching the vibration of vocal cords, movements of lower jawbone and face of a speaker [3].

This mentioned characteristics of communication systems show that not all these systems are applicable for the preparation of the deaf-blind. The form of communication with such afflicted people is dependent especially on the extent of their disability e.g. other factors with either primary or secondary effects on the perception of these people such as the environment, lighting, ambient noise, weather, psychical condition, the voice setting of a speaker, the way of speech, form and complexity of locution etc. The highest attention is necessary for people with the inborn deaf-blindness and the developed total deaf-blindness. The way of communication with people with inborn and developed deaf-blindness is incomparable. For the developed one, a communication system has been already developed in the childhood and it is possible to apply it during the acquisition of another communication system or emergency alternative communication [6].

**For the communication with the deaf-blind, the following communication systems can be applied:**

*Spoken speech* – a very frequent way of communication with persons with developed deaf-blindness with the rest of hearing. During the communication it is important to speak slowly and clearly, the hearing is often compensated by hearing aids.

*The dactyl alphabet (dactylotics)* is a communication system for the deaf-blind with the rest of the eyesight for which it is necessary to be familiar with the Roman characteristics and the Czech language. The alphabet uses various positions and shapes of fingers for the deliverance of letters, speech sounds join the words the same way as in spoken speech. In the Czech Republic a one-hand or both-hands dactyl alphabet is used.

*Written form* – communication in a written form is used by the deaf-blind with the rest of the eyesight and hearing through a written text, computer and a

mobile or writing phone for the deaf. Written form is used also in situations where specific conditions for communication are not respected.

*Sign language* – it is a way of communication suitable for the deaf-blind with the rest of the eyesight. The system is based on motional and mimic, natural and agreed expressive means whose principle lies in motions and configuration of hands and fingers.

*Taktil sign language* – a method suitable for people with practical or total deaf-blindness. This communication is based on the connection of hands of a deaf-blind person with a person who performs signs. Individual signs are based on sign language for the deaf, but they are modified for the needs of the deaf-blind.

*Lorm alphabet* – is a flat-hand alphabet suitable first of all for practically or totally deaf-blind persons. Individual touches into the palm of a deaf-blind person respond to specific letters.

*Braille writing* is writing for the deaf-blind persons with practical or total blindness. The combination of six points in two columns and three lines make individual letters which are read through the touch.

*Block letters written into a flat hand (dactylography)* – this form of communication is used by the deaf-blind with the loss of the eyesight and hearing at the latter age. The shapes of block letters are inscribed into the flat hand of a deaf-blind person.

*Dactylotics into the flat hand* – modified one-hand dactyl alphabet is not signed by a person into the space but it is located into the flat hand of a deaf-blind.

*Tadomu* – a method used by people with inborn deaf-blindness. A deaf-blind puts his hand on the face of a speaker so that he could perceive through the little finger the vibrations of the throat, through the thumb the motions of lips, and through the rest of fingers the face.

*Taktiling* is less used form of communication for reading from lips. A deaf-blind person must have sufficient rest of the eyesight.

The choice of a particular communication system is therefore quite individual. It is necessary to emphasize once more that the choice depends on the time of the disability occurrence, on the prevailing sense defect, evolution level and on psychical and physical condition of a deaf-blind person [7].

### 3 POSSIBILITIES OF PREPARATION SUPPORT

The preparation of persons with hearing disability or the deaf-blind for civil protection can be solved in several ways. The most suitable way could be a two-phase way:

- elementary group preparation (schooling) by liable authorities – professional lecturers supported by selected subjects with clarification of all aspects regarding the occurrence of extraordinary events and behavior during them;

- consequent individual preparation with the application of appropriate means for this preparation – in more details bellow.

Standard topics for this preparation do not have to be in any way limited or selected. **Special attention must be, however, devoted to self-protection, calling for help and the ability to communicate with the rescuers**, which will be undoubtedly one of the essential conditions for help provision.

### 3.1 Preparation support by selected entities

For above mentioned preparation support of given categories of persons, we can use assistance of **a wide range of organizations** (with which these persons are mostly in a close contact). The scope of their employment is besides others first of all provision of help to these persons, their safety and enforcement of their rights, interests, and needs. Considerate part of these organizations are members of the Association of the deaf, the hard of hearing and their friends – ASNEP (e.g. Hard of Hearing Czech Club “HELP”, Czech Union of the Deaf, Union of the deaf and hard of hearing in the Czech Republic, Czech-Moravian Union of the deaf etc. For example a company LORM – a society for the deaf-blind is focused on the problems of the deaf-blind as the only registered provider of services for the deaf-blind in the CR [6] whose mission is besides others cooperation with organizations for the hearing and eyesight disabled, pedagogic and education activities, publication activities of experts and propagation of the issue of the deaf-blind etc.

This issue can be supported by various **information portals** – e.g. information portal on the world of the deaf - ruce.cz, a portal supporting education in sign language – ticho.cz etc. They, among others, provide basic information regarding the issue of the deaf and support their activities that way.

Various **magazines** have been published for people with hearing disability as well, e.g. a periodical (every two months) for hearing disabled Gong or a similar magazine UNIE whose form will be in the future probably only in an electronic version, further also Methodic papers - Bulletin of the Union of the deaf and the hard of hearing in the CR, or a quarterly published bulletin Touches, published by the company LORM. By means of them also the information for people with mentioned handicaps on the issue of extraordinary events, preparedness for them and their solution can be given.

Publishing information for people with hearing disability from the area of civil protection in other periodicals on other portals is almost useless, because these people basically do not look up other sources of information.

### 3.2 Application of selected communication systems for group preparation

Respective preparation of persons with hearing disability or the deaf-blind for civil protection by lecturers will be due to the effectiveness in most cases **group preparation**, rarely an individual one. Therefore it is necessary to choose for this preparation such communication systems which will be most appropriate

and efficient. Preparation could be supported especially by **interpreting through the Czech sign language**, in smaller amount of cases through the visualization of spoken Czech (however, here neither of communication systems will be suitable for the deaf-blind, without any rest of the eyesight or without current knowledge of sign language). Since these communication systems are not easy to master practically, we can say that respective professional lecturers (liable authorities) who are supposed to organize such preparation for civil protection should cooperate closely with the entities capable to provide relevant support for this preparation in the area of mentioned communication.

Cooperation in this sense can be established either directly with **particular interpreters** engaged in interpreting to/from Czech sign language, or **through institutions** that are specialized in this activity. Among these institutions we can range e.g. again Association of organizations of the deaf, hard of hearing and their friends, specifically then the Center for arranging interpreters for the deaf. Arranging interpretation services is through this center free of charge, basic cost of one interpreting hour starts at 300 Czech Crowns [8], which is for the interpreter with guaranteed quality. Among other significant entities associating also these interpreters can be included a non-profit professional organization – the Czech chamber of sign language interpreters. The prices for interpreting with this organization can be found e.g. in [9]. The costs for these interpreters can substantially influence the total costs for preparation in some cases; therefore, it is necessary to include them into total costs for respective preparation.

Another service which people with hearing disability can use not only in this area, but also e.g. for communication with their ambient (at offices, courts etc.), is **simultaneous transcript**. The ministry of labor and social affairs, however, this year does not support this service at all and the support for the next year is also unclear.

It will be very useful for the interpreters when they get familiar in advance with the interpreting issue. It is necessary to be aware of the severity of the interpreting itself and e.g. where the employment would take about 2 hours, it is indispensable that this would be ensured at least by 2 interpreters whose optimal alternation in interpreting would be about 20 minutes.

### 3.3 Application of selected means for individual preparation

At present there is a number of materials focused on the preparation support for civil protection. They are available e.g. at websites of institutions which are engaged in this issue - e.g. MI – GD FRS CR, Association Rescue circle, Center for safe state com. etc. These institutions elaborate, publish and in some case for free or for some fee distribute these materials. Some of them are available for free. Other supporting materials are published e.g. by the publisher Fortuna, ALBRA etc. These materials can be divided into two groups – audiovisual and textual.



### 3.3.1 Audiovisual materials

Audiovisual materials for the preparation of people with hearing disability namely for the preparation of the deaf-blind with some exceptions are not supported at all (unfortunately it is the same with materials recently published). To adapt materials for the preparation of people with such health handicaps is possible basically by several elementary ways, namely:

- adding titles (see picture 1);
- adding sign language (see picture 3);
- combination of the previous two ways (see picture 2 and 4).



*Fig. 1  
Added lettering [10]*



*Fig. 2  
Added lettering and sign  
language [10]*



*Fig.3  
Added sign language with  
back keying [11]*



*Fig. 4  
Added sign language with  
back keying and  
highlighting some passages  
by lettering [11]*

#### *Lettering of education programs for data carriers (or TV broadcasting)*

At present the DVDs are the most common recording audiovisual carriers. Naturally, also HD and DVD or Blu-Ray can be applied; however, these media are not due to their temporary higher price and rare spread of appliances able to replay Blu-Ray suitable. Lettering can be done with these kinds of carriers in more languages, relevant language of lettering can be set then. Lettering can be done also on video-cassettes VHS, nevertheless, they are due to the progress of audiovisual technology obsolete and moreover lettering cannot be taken away when needed, lettering in more languages is understandably more difficult as well.

Within the Czech Republic a number of TV studios and other firms are involved in lettering on a professional level. The price of lettering is generally set individually by a contract in different ways (e.g. the price for a title – approx. several thousand of Czech Crowns.piece<sup>-1</sup>, the price according to the length of a lettered program – approx. several thousand of Czech Crowns.hour<sup>1</sup>, the hourly

price for lettering – approx. several hundred of Czech Crowns.hour<sup>-1</sup> etc.). Lettering though, will demand a narrow cooperation between the creators of a film and a firm providing lettering first of all because of the **provision of lettering especially of the passages which are important for the understanding of a given issue**. There is a wide range of software tools for the titles editing (e.g. also freeware), it can be accomplished also in current home environment with the computer of an average or slightly above-average configuration.

If a documentary film is designed for the preparation of people with hard of hearing only, it is appropriate to mention the necessity to adjust sounds (accompanying music etc.) because they may disturb spoken words and worsen the understandability. This particular word a person e.g. with a hearing aid is able to understand (no lettering is needed for the understanding, i.e. it does not have to be activated); however, some sounds can worsen the perception, in some case they might be unpleasant to listen to.

Nowadays a considerable number of TV station programs is equipped with lettering (with the most viewed ones, broadcasting **within the Czech Republic, the lettering can be launch via teletext pp. 888**). Some **selected programs** which are offered within **the frame of the internet broadcasting, are also lettered**.

#### *Completing with sign language*

Completing a documentary film with sign language can be carried out in two ways namely either with the application of back keying or without keying (keying – input of the shot or of the shot cut from one camera into the shot winded by another camera – sometimes this method is called Chromakey).

Keying itself represents only a technological issue. With both back keying and without it, during the production of documentary (education) films a narrow cooperation with an interpreter into sign language is indispensable. The interpreter (because in some cases there might be professional expressions connected with e.g. using of foreign words) should be fairly familiar with an interpreted issue and be able to master it at least on a basic level. **Interpreting should be first of all focused on elementary facts necessary for comprehending the topic**. Therefore it would be appropriate to devote to such educational film sufficient time and cooperate closely already during the preparation phase of a film.

### **3.3.2 Textual materials**

The application of textual materials (either printed or materials on internet pages) can be at the first glance an ideal way for the preparation of mentioned categories of persons, except the blind-deaf and blind ones. However, only a low number of persons with hearing disabilities can read, and neither high percentages of the hard of hearing ones. Many of them moreover do not comprehend the meaning of a reading text. The conclusions of professionals who try to give the reasons for this phenomenon, have differed so far. The surveys in the Czech Republic and in abroad agree that the graduates from elementary schools - pupils with hearing disability are in their reading skills on the level of 9 year-old children

without this handicap. The tests proved that the ability to read drops with the extension of the loss of hearing. **The appropriateness of textual materials is therefore directly dependent on the level of hearing disability. In order that a person with hearing disability could comprehend the meaning of a reading text, this would have to be modified and simplified in order to be more comprehensible. Textual materials cannot be considered the universal educational materials for this category of persons.**

Respective texts both for persons with hearing disability, and also the deaf-blind should be due to the comprehension elaborated in the most simple form with the application of more extensive visual attachments. On the other hand these materials should reflect all relevant issues necessary for this preparation.

#### **4 TECHNOLOGY MEANS FOR THE SUPPORT OF COMMUNICATING AND INTERCOMMUNICATING ABILITY**

Means for the support of communication of persons with hearing disability e.g. deaf-blind persons and mutual ability to communicate with rescue units is another inseparable part of the provision of their protection in case of a threat. The offer of these specific means of communication is currently sufficient. The choice of them should reflect not only the needs but also the abilities and technology possibilities of both sides - both handicapped, and rescue units represented first of all by sections of integrated rescue system (beside others also emergency call centers - TCTV 112).

##### **4.1 Selected technology means for communication with rescuers and TCTV 112**

At present there is a wide range of intercommunication means which are used especially by **persons with hearing disability with complete loss of hearing** and which can be used for the communication with rescuers. The basic ones are the following:

- **mobile phones** with classical SMS sending ( former **paggers** – simpler and cheaper ways of communication available at price of less than a thousand crowns have been on decline);
- **writing phones** – communication is through the writing of a text on a keyboard and consequent visualization of a written text on a display of a recipient of a message. In advanced countries we can meet them at various offices, health centers, police stations etc. (a more expensive variant – the price for e.g. appliance Polytel 200X is about twenty thousand Czech Crowns, the appliance TextLink9100 around twelve thousand Czech Crowns – for hearing disability persons they are grand-aided up to 75 %). At present the variant **E-writing phones** is promoted - they enable the communication from PC.

**The hearing disabled with partial loss of hearing** can for the mentioned communication use specially **adjusted phones with various specific functions and equipment** - volume regulation, heights and depths, light signalization of ringing with the transfer of the sound the bone conduction via a pulse vibrator with an induction loop etc. The price for these appliances is mostly up to five thousand Czech Crowns.

Some telephones are at present equipped also with so called **“SOS” buttons** which after pressing automatically dial even several telephones numbers or send to the pre-selected numbers a saved text message with the request for help. A simplified variant is the **application of “wireless emergency button”** in connection with e.g. home phone and call for help this way e.g. within the building.

A significant news is **software LipCell** which during a call e.g. via the phone with a display or a computer is completed with artificially made face whose lips moves as a speaking person talks. **This way the hearing disabled can combine listening with lip-reading.**

In the frame of the communication of the hearing disabled or the deaf-blind with others, under certain circumstances, also the applications such as **SKYPE** can be used (application for free calling via the internet), **ooVoo** (the application designed for operation of video-chatting and videoconference via the internet), e.g. other applications with minimally two simultaneously registered participants within the transfer.

**Not all TCTV 112 are at present able to communicate with hearing disabled.** The communication can be achieved through TCTV 112 e. g. in Pilsen or Liberec region, but via SMS messages only, despite the fact that this service by virtue of technology resources all TCTV 112 [13] are able to arrange it. Unfortunately at present solved project – **Unified level of information systems of operation control and modernization of technologies for the receipt of emergency calls of basic sections of integrated rescue system** – does not solve the issue of communication with the hearing disabled; it will be solved subsequently [14].

## **4.2 Other services for connecting the hearing disabled and the deaf-blind with their ambient in case of an extraordinary event**

### **4.2.1 Services “The call for the deaf”**

Approximately from February 2010 all people with a hearing handicap can **use for free a special assistance service O2 – Call for the deaf.** Telefónica O2 Czech Republic operates the line where skilled operators help the deaf and hard of hearing persons to communicate with sound people. At first it was possible to use this service either with a text telephone or a fax (since 1997 when this service was established), newly it is possible to use for the communication also SMS, e-mail and ICQ. Operators of the line work as interpreters and are able to help the users in a wide range of life situations. The most frequent situation is e.g. communication with institutions and offices, addressing doctors, looking up

needed telephone numbers etc. The principle of operating the service is very simple. The operator on line receives from a deaf customer instructions by an opted form and then he (she) communicates with sound users. The same way the operator may interpret the information towards the deaf.

**For the communication with operators we have three numbers:**

- 800 142 142 (for connecting a sound person and a deaf one);
- 800 143 143 (for customers having a writing phone);
- 800 147 147 (for the communication via fax).

**Further it is possible to use also:**

- neslysci@o2.com (the service is via e-mail for the deaf);
- 722 147 147 (communication via SMS);
- ICQ: 593 439 364 (the service via ICQ for the deaf).

The service is provided 24 hours a day. The users pay only for a sent SMS according to their set up tariff with the respective operator. The following services are free or charge for the customers of all nets. The service is used by several thousand customers yearly [15].

#### **4.2.2 SMS line of CR Police**

The project, whose output is the possibility for persons with hearing disabilities or the deaf-blind to send SMS and ask for help the CR Police, was originally initiated at the beginning of 2006 by the Preventive Information Team of the Administrative Center of the capital city of Prague of the CR Police. The project was aimed to provide the access to emergency call number 158 to all citizens, therefore also to citizens handicapped with the disorder or the loss of hearing.

**The line is at present operating on the territory of the whole republic with the number:**

- SMS 603 111 158.

#### **4.2.3 SMS emergency line**

It is the line of a system enabling the receipt of messages directly at the control center of Emergency Medical Care of the capital Prague. The line has been operating since 2002-10-01 as the first one in the Czech Republic.

**The line for the connection has the number:**

- SMS 724 333 155.

The number is primary for the connection with the above mentioned control center [17], the center is of course able within the country to ensure the transfer of the message to other centers of emergency medical care. Unfortunately, at present there does not exist the unification of using this service within all country regions as in the preceding case, individual regions deal with this service (as long as they deal with it at all) individually.

#### 4.2.4 Telecommunication center of the deaf and the Agency for the deaf

Undoubtedly, the project dealing with the minimization of a communication barrier for the above mentioned persons in order to support their communication with the ambient (and also in case of the occurrence of an extraordinary event) will be very beneficial. A telecommunication center for the deaf established by virtue of the mentioned project enables the communication with the ambient for the persons concerned through a chosen communication medium.

Some other similar services in this sense are offered by the Agency for the deaf APPN, o. s., this agency provides selected services for free and 24 hours a day.

#### Résumé

*Both the hearing disabled, and the deaf-blind have the same rights to be prepared for civil protection as non-handicapped persons. Extraordinary events or crisis situations will not differentiate among the population.*

*The introduced analysis and the summary of possibilities of forms and means for preparation of the hearing disabled and the deaf-blind should help mainly the entities that have a statutory duty to execute such preparation, and the entities that might organize such preparation on their own initiative or those participating in the organization. It also refers to the application of potential communication devices of concerned individuals in case of the occurrence of extraordinary events within the integrated rescue service units.*

*It can be claimed that mentioned preparation may implement, namely through both mentioned ways – the assistance of specialized trainers and sign language interpreters in the framework the preparation, and materials appropriately modified for individual preparation. Undoubtedly this very specific form of preparation will have increased requirements for its provision, namely as far as all intents and purposes is concerned.*

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