

September 29, 2010



Office of the Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

RE: CG Docket 05-231

On Thursday, September 23, members of the FCC Consumer & Governmental Affairs Bureau Disability Rights Office visited the National Captioning Institute (NCI) for a meeting and tour.

Representing the FCC were:

Marilyn Abraham
Arlene Alexander
Helen Chang
Francine Crawford
Solita Griffis
Greg Hlibok
Sherita Kennedy
Susan Kimmel
Mikelle Morra
Traci Randolph
Karen Peltz Strauss
Dana Wilson

Representing NCI were:

Gene Chao, Chairman, President, and CEO (by telephone)
Beth Nubbe, Director, Offline Production and Described Media
Marc Okrand, Director, Administration and Live Captioning
Jill Toschi, Director, Voice Writing

Specific topics discussed included:

1. NCI's history, mission (early and current);
2. NCI's current focuses – quality as well as access;
3. Dramatic lowering of captioning rates since the implementation of the mandate and the discontinuation of Department of Education funding for captioning and the impact on caption quality;
4. NCI's strategy to meet its mission in light of lowering rates;
5. Captioner accuracies, comparison of steno development and voice writing development;

6. Discussion of potential trouble spots in the delivery of captioning, focusing on what NCI can do;
7. Webcasting;
8. 3D captioning;
9. Viewer complaints and comments on captioning;
10. Ability of the captioning industry to handle captioning of additional news broadcasts in the event that stations are no longer allowed to use electronic newsroom captioning;
11. Broadcaster requests to leave bad language out of captioning, even when spoken in the television program.

The group toured the four production areas at NCI: video description, offline captioning, real-time captioning, and voice writing.

Attached please find copies of some of the materials that were provided to the visitors. Materials containing company-confidential material are not included.

A handwritten signature in cursive script, appearing to read "Marc Okrand".

Marc Okrand
Director, Administration and Live Captioning
National Captioning Institute, Inc.



NCI Background & History

The National Captioning Institute (NCI) was established in 1979 in cooperation with ABC, NBC, PBS and the federal government as a 501(c)(3) nonprofit corporation with the mission of promoting and providing access to television programs for the deaf and hard-of-hearing communities through the technology of closed captioning.

Closed captioning is the process of converting the dialogue, narration and sound effects of a television program into words that appear on the screen—similar to subtitles. The captioned information is transmitted within the broadcast signal in encoded (or closed) form. A caption-decoding television or caption decoder is used to “open” the captions and display the words on the TV screen.

On March 16, 1980 the first closed-captioned television programs were broadcast: *The ABC Sunday Night Movie* (ABC), *The Wonderful World of Disney* (NBC) and *Masterpiece Theatre* (PBS). A silence had been broken. For the first time ever, deaf people across America could turn on their television sets—with a caption decoder—and finally understand what they had been missing on television.

The closed captioned television service was an overnight sensation. Suddenly, thousands of people who had been living in a world of silence could enjoy television programs along with hearing people. NCI had truly created words worth watching.

With this success, it was only natural that captioned television viewers would want more accessible programming—like prime time series, soap operas, talk shows, game shows, sports events, children’s programming, cartoons, and home videos—the same rich and wide variety of programming that hearing people take for granted. Most importantly, they wanted instant access to live national and local newscasts. NCI responded.

In 1982, NCI developed the real-time captioning services, a process for captioning newscasts, sports events, specials and other live broadcasts as the events are being televised. With real-time captioning, court reporters who have been trained as real-time captioners enter data at speeds of 250 words per minute to give viewers instantaneous access to live news, sports and information. The result is that the viewer at home sees the captions within two to three seconds of the words being spoken.

In 1989, NCI partnered with ITT Corporation to develop the first caption-decoding microchip, the *Superchip*, which could be built directly into new television sets at the manufacturing stage. This led to the introduction and subsequent passage of the Television Decoder Circuitry Act, which mandated that, effective July 1, 1993, all new television sets 13” or larger manufactured for sale in the U.S. must contain caption-decoding technology. Now, millions of people have access to captions with the push of a button on their remote controls.

Captioning has grown from a little-known service for people who are deaf to a truly global communications service that touches the lives of millions of people every day. Because of the efforts of NCI, the television industry, the federal government and so many others, people who are deaf or hard-of-hearing will never again be isolated from television—our nation’s dominant source of entertainment and information.

Trademark

NCI established this trademark as our symbol for quality and excellence in captioning service.



NCI Live Captioning

Background

In 1982, the National Captioning Institute developed the real-time captioning service to give captioned TV viewers access to live programming. With the world's most sophisticated real-time captioning facilities and the most highly trained captioning professionals, NCI provides over 70,000 hours of live captioning every year for television programming and video feeds of live events such as meetings and seminars.

What is Live Captioning?

Live captioning is provided at the time of program origination. NCI provides three kinds of live captioning services:

Real-Time Captioning Roll-up captions are created and transmitted at the time of broadcast origination.

Live Display Captioning Roll-up captions are prepared in advance but transmitted at time of program origination.

Live Encoding Pop-on captions are prepared in advance, but transmitted at the time of program origination using Automatic Live Encoding (ALE).

NCI prefers to see live programming in order to provide a premium-quality captioning service, though captioning can also be provided using only an audio feed. NCI is able to receive live video feeds via broadcast, satellite, cable or Internet transmission. Our satellite capability enables us to see all domestic satellites that serve the continental United States. NCI's multiple satellite dishes and receivers provide full redundancy, assuring your video signal will be received.

NCI is the only captioning company with two fully equipped real-time captioning facilities that have complete redundancy, alternative power supplies, and engineering support. One facility is in Vienna, Virginia near Washington, D.C., and the other is in Dallas, Texas. NCI also has a large national network of fully equipped satellite studios and other remote real-time captioning locations. Engineering support is available to all of our clients to ensure accurate transmission of captions. For first time clients, technical consultation is readily available to help with encoder installation.

What Type of Skills Are Needed for This Demanding Work?

NCI recruits court reporters and retrains them to become real-time captioners. It can take up to a year for a court reporter to develop the speed, accuracy and skills necessary to be a real-time captioner who is capable of creating captions from the spoken word at speeds of over 225 words per minute while averaging over 98% accuracy.

As a newscast, sports program or event is being televised live, a real-time captioner at one of NCI's facilities watches and listens to the program, then phonetically types the words on a stenographic keyboard connected to a computer. The computer translates the keystrokes into captions. The captioned information is then transmitted instantaneously across telephone lines to the broadcast origination point. The captions appear on the TV screen only two to three seconds after the words have been spoken!

How Do You Arrange Captioning?

NCI's requirements to begin captioning are very simple. Call an NCI marketing representative with the following information:

- Date, time and length of program, including run-over possibilities
- Technical contact names and phone numbers
- Technical information on transmission path:

Satellite

- downlink frequency
- service time
- encryption information

Other Access

If a video feed is not available through broadcast, cable, satellite or Internet connections, a dedicated audio feed must be established.

NCI Prerecorded Captioning

Background

In 1980, the National Captioning Institute (NCI) created the first closed-captioned, prerecorded programs for national viewing. Today, with the world's most advanced captioning facilities and highly trained captioning professionals, NCI captions over 9,000 hours of prerecorded programming every year for television, home entertainment, government, educational and corporate programming.

What is Prerecorded Captioning?

Prerecorded captioning (also known as off-line captioning) is the captioning of previously recorded video programs. This includes television series, training tapes, home videos, DVDs and much more.

The appearance of prerecorded captions is usually "pop-on" (timed and placed to synchronize with the program) but could also be "roll-up" (scrolling on and off the screen in a continuous motion). Captions are typically placed in the lower third or upper third of the television screen. When programs are edited, captions can be reformatted to match the new version.

There are two main parts of the process:

1) Captioning: the transcription of the audio into caption format, taking into consideration placement and time synchronization. NCI's highly skilled off-line captioning staff performs this first step.

NCI can accommodate any size job provided on NTSC or PAL tapes or delivered via the Internet. We can handle any tape format, including Betacam SP, DigiBeta, 3/4" Umatic, DVC Pro, DVCam, Mini DV, D2, D3, 1", Super VHS and VHS. In addition to English, we can create captioning or subtitling in Spanish, French and many other languages. Research verification, quality checks and technical support are a standard part of our service.

NCI makes the captioning process very easy for the client by providing a very efficient, accurate and reliable service. We represent that our captions are a true depiction of the audio. Every program that we caption is saved and archived. Reformats and transcripts are readily available.

On average, it takes about eight employee hours to caption a half-hour program in pop-on format and review it for accuracy.

Once the review process is completed, a computer file containing all of the caption information is prepared and sent back to the client or designated encoding facility, where it is merged with the master tape to create a captioned submaster tape—a process called encoding.

2) Encoding: the process of inserting the caption data into the vertical-blanking interval (VBI) on Line 21 of the television signal. Encoding may be arranged by the client or through NCI.

How Do I Arrange for Captioning?

NCI's requirements to begin captioning are very simple:

- 1) Schedule your program(s) to be captioned with your NCI marketing representative.**
- 2) Send a work tape and your master if NCI is handling the encoding process.** NCI also accepts delivery of video programming for captioning services via the Internet. See *Work Tape Specifications* and *Internet Delivery Specifications* for technical details.
- 3) Enjoy the confidence of knowing that you are getting the best quality and service available for prerecorded captioning.**



NCIFY!

Information from the National Captioning Institute

An Illustrated View of Prerecorded Captioning

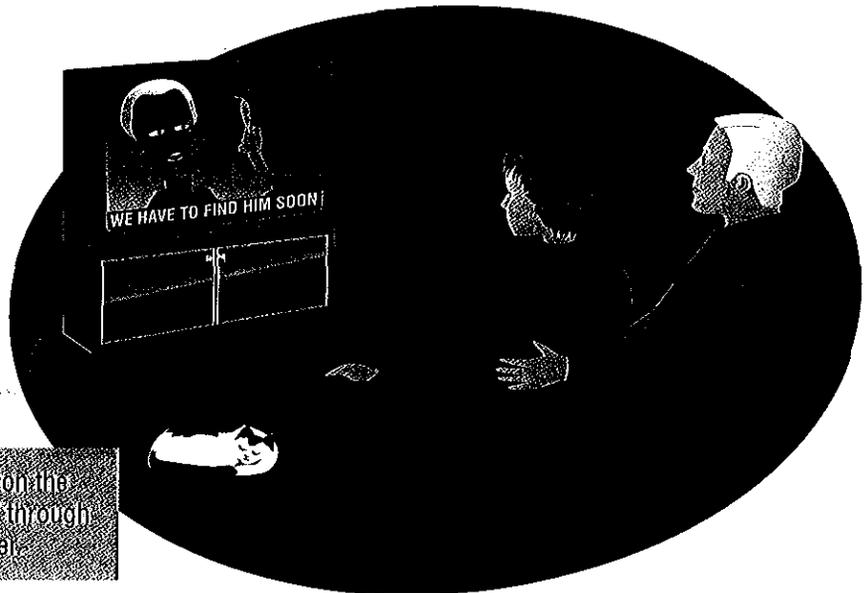
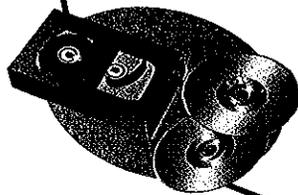
Producers send NCI a copy of the program.



Captioners transcribe program audio and divide text into captions while timing them to the program's audio and video.



NCI sends the caption file to the post production facility where captions are then merged with the master tape, creating a captioned submaster.



TV viewers at home can turn on the captioning feature of their TV through the built-in or external decoder.

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NCI's Glossary of Captioning Terms — *continued*

Closed Caption Decoder: A small electronic device that decodes the captioning signal and causes captions to appear on the screen. In the 1980s and early 1990s, closed caption decoders were the major means by which consumers could watch captioned television. Since July 1, 1993, all television sets with screens 13" or larger manufactured for sale in the United States must have a built-in decoder chip.

Caption File: A computer file that stores a program's caption information, including the text, timing and placement information. The caption file is used in conjunction with an encoder to create a captioned submaster.

Encoding: The process of inserting the caption data into the television signal on Line 21.

Encoder: A device that electronically inserts the caption data into the television signal on Line 21.

Line 21: The television signal is comprised of 525 lines. The vertical blanking interval encompasses Line 1 through 21. The caption information resides on Line 21, and active video starts on Line 22.

Time-code: An electronic signal embedded in videotape that discretely identifies each frame of video.

Master: The original, first-generation videotape of the final version of a program. The master is the source videotape used to create a captioned "submaster."

Submaster: Any duplication created from the master videotape. The captioned videotape is a submaster of the original.

Automatic Live Encoding (ALE): When production schedules are tight, this is an alternate means of transmitting or displaying captions. Automatic live encoding makes use of the same caption creation techniques used in prerecorded captions, but a different method is used to trigger the data into Line 21 of the television signal. The captioned data is loaded into the computer and the internal clock within the computer is used to trigger the captions as opposed to using time-code from the program videotape. A manual trigger is used to start the transmission of data between the computer and the smart encoder. The display of automatic live encoding is pop on, the same as used for prerecorded captions.

Subtitles: Permanent on-screen text that represents the narration, dialogue, music or sound effects in a program. Subtitles are created with a character generator. No decoding capability is required for viewing them. Subtitles are usually in upper- and lower-case letters and do not appear in a black background. Also, subtitles are typically placed at the bottom center of the screen.

Reformat: The process of revising previously captioned programs for rebroadcast, requiring the retiming and/or editing of caption text to synchronize it to the edited video and audio.

NCI's Glossary of Captioning Terms

Captioning: The process of converting the audio portion of a video production into text that is displayed on a television screen. The captions are typically white upper-case letters against a black background.

Prerecorded (Off-line) Captioning: The preparation of captions for recorded programming so that at time of air or tape playback, the captions are a part of the videotape. Appearance of captions is usually "pop-on" but could also be "roll-up." Captions are typically placed in the upper or lower third of the television screen.

Pop-On Captions: A phrase or sentence appears on the screen all at once—not line-by-line—stays there for a few seconds and then disappears or is replaced by another full caption. The captions are timed to synchronize with the program and placed on the screen to help identify the speaker. Pop-on captions are used for prerecorded captioning.

Center Placement Pop-On Captions: Pop-on captions are centered at the bottom third of the TV screen. Their placement is similar to subtitles although they are displayed as captions in white letters in a black box. Speaker changes are noted by a dash.

Roll-Up Captions: Roll-up captions roll onto and off the screen in a continuous motion. Usually two to three lines of text appear at one time. As a new line comes along, it appears on the bottom, pushing the other lines on the screen up. Roll-up captions are used for all live captioning and can also be used for prerecorded captioning.

Timed Roll-Up Captions: For prerecorded programming, roll-up captions can be timed to be closely synchronized with the audio.

Live (On-line) Captioning: Captioning that is provided at the time of program origination. "Real-time," "live-display" and a combination of the two are all methods of on-line captioning. Appearance of captions is roll-up.

Real-time Captioning: Method of captioning where captions are simultaneously prepared and transmitted at time of origination by specially trained real-time captioners using a stenotype machine.

Real-time Dictionary: A computerized dictionary comprised of the phonetics and their corresponding English words that the captioner uses to build words and create punctuation. Real-time captioners write phonetically what they hear. Similar to playing chords on a piano, multiple keys are depressed on a steno machine to represent each phonetic sound. No two captioners write exactly the same way, so each has a custom dictionary.

Live-Display Captions: Live-display captioning is used when an accurate script and/or videotape is available prior to the time a program is telecast. The text of the program is transcribed and stored in a computer file. As the program is telecast, a captioner pushes a button on the captioning system to display each caption. The roll-up captions appear line-by-line and are synchronized with the program audio as closely as possible.

Closed Captions: Captions that can only appear with the use of a decoder. The decoder may be either attached to a TV or built into TVs made after July 1993. Closed captioning allows caption users to enjoy the same broadcast and recorded video materials that other television viewers enjoy. Closed-caption information is carried in Line 21 of the vertical blanking interval of the television signal.

Open Captions: Captions that are visible without using a set-top decoder or a TV with a built-in decoder chip. When a video is open-captioned, the captions are permanently part of the picture.

— continued

NCI Described Video

- Television
- Videotape
- DVD

What is NCI Described Video?

NCI Described Video is a service that provides access to televised and recorded video programming for people who are blind or have low vision. Through a detailed process that provides concise yet vivid descriptions of a program's visual elements, NCI Described Video mirrors the commitment of NCI's captioning service to accessibility, along with its reputation for quality, capacity and timely delivery. The descriptions are combined with the original sound track on the SAP (Secondary Audio Programming) channel of televised programming or as a separate sound track on other media.

NCI's Competitive Edge

NCI is the global leader in providing closed captions for television. With its established reputation, its unparalleled resources and its depth of trained personnel, NCI has created its Described Video Service to fully complement its highly successful captioning services. Because so many elements of the process are already in place, NCI can offer competitive pricing, same-time captioning and unquestioned quality.

Section 508 of the Rehabilitation Act requires Federal agencies to make their training and informational video and multimedia productions accessible to people with disabilities. These productions must include an audible description of the video content if they contain visual information necessary for the comprehension of the content. The Americans with Disabilities Act (ADA) includes similar requirements for state and local governments.

NCI Described Video Features

Upon delivery of work tape (time-coded, if possible) on Digibeta, Betacam SP, VHS, SVHS or 3/4" tape, NCI describers review the program and then write a script describing the visual elements that are relevant to each scene. The script is time-coded, complete with audio or video cues, to identify the selected natural pauses and lapses in the dialogue. The script is also word-efficient, as the level of detail depends on the time available for speaking.

The description includes:

- Characters in the scene
- Location of the scene
- Who is speaking
- What the characters are doing
- What the characters are wearing
- Facial expressions and body language
- Text shown on objects in a scene or as subtitles
- Colors

Once the script is written, it is reviewed for content, adherence to style and word efficiency so that the narration will easily "fit" into non-dialogue spots.

Voiceover

The voiceover is unobtrusive and doesn't compete with the dialogue. NCI can choose from either union or non-union actors to voice the descriptions.

Working in a professional studio setting, the descriptions are recorded in a high-quality digital format. These recorded descriptions are then professionally mixed with the original sound track for optimal sound levels and recorded on a master tape (lay back) as a separate sound track.

The Benefits

In addition to compliance with accessibility regulations, providing description allows programming to reach yet another new and extremely appreciative audience. With more than 12 million visually impaired viewers in America, this type of access to news, information and entertainment is a service whose importance cannot be overstated.

How do I arrange for NCI Described Video?

Contact your NCI Marketing Representative.

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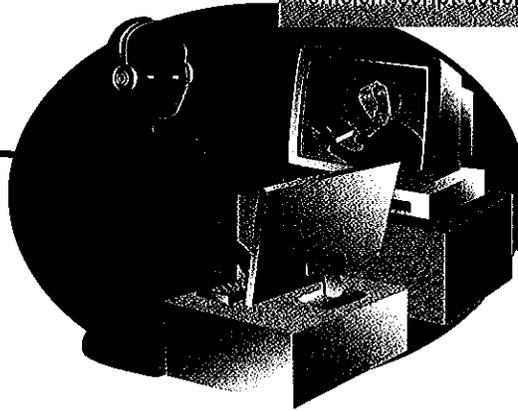
Information from the National Captioning Institute

An Illustrated View of Described Video

Producers send
NCI a copy of
the program.



NCI describers review the program and then write a word
efficient script describing the visual elements of the scenes.



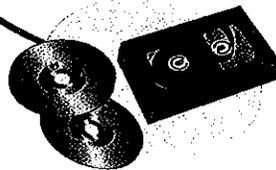
The script is reviewed for content, adherence
to style and word efficiency so that narration
will fit within selected non-dialogue spots.



NCI delivers a recording with audio
descriptions allowing the programming
to reach more than 12 million blind and
low vision Americans via the Secondary
Audio Programming (SAP) or
Multichannel television Sound (MTRS)
feature on their TV or remote.



In a studio setting, descriptions are
recorded in a high quality digital format,
professionally mixed with the original
sound track and then recorded on a
master tape as a separate sound track.



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NCI's Custom Real-Time Captioning

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Information from the National Captioning Institute

Background

In 1982, the National Captioning Institute developed the real-time captioning service to give captioned TV viewers access to live programming. With the world's most sophisticated real-time captioning facilities and the most highly trained captioning professionals, NCI provides over 75,000 hours of live captioning every year for television programming and video feeds of live events such as meetings and seminars.

What is Custom Real-Time Captioning?

NCI's Custom Real-Time Captioning is a cost-effective service designed for live programming that requires flexibility and reliability but only needs limited technical support and does not require refeeds. This service is particularly useful for local and regional news, sports and community specials, corporate and government agency meetings, Webcasts, videoconferences, and live cable network programming.

Custom Real-Time Captioning Features

- Highest quality real-time captioning available
- Captioning provided at NCI facilities and/or remote locations
- Scheduling flexibility
- General availability of backup equipment
- Limited availability of backup personnel and backup power
- Access to technical support
- Captioner works from either a video feed or an audio line (client monitors captions when an audio line is used)
- No refeeds or fix-ups available

What Type of Skills Are Needed for This Demanding Work?

NCI recruits skilled real-time captioners and court reporters who are retrained to be real-time captioners. It can take up to a year for a court reporter to develop the speed, accuracy and skills necessary to become an NCI real-time captioner.

NCI's real-time captioners are capable of creating captions from the spoken word at speeds of over 225 words per minute while maintaining accuracy at a minimum of 98 percent, though the level usually exceeds 99 percent.

How Do You Arrange Captioning?

NCI's requirements to begin captioning are very simple. Call an NCI marketing representative with the following information:

- Date, time and length of program, including run-over possibilities
- Technical contact names and phone numbers
- Technical information on transmission path:

Satellite

- downlink frequency
- service time
- encryption information

Other Access

- If a video feed is not available through broadcast, cable, satellite, or Internet connections, a dedicated audio feed must be established.

All information subject to change. Rev. 1/06


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