

**National Library Service
for the Blind and
Physically Handicapped**

The Library of Congress

Approved by Director, NLS/BPH

[Handwritten Signature]

Date *11/13/00*

Specification: 304

Title: Requirements for Narration and
Copies of Cassette Magazines

Date: November 2000



Technical Certification

John P. Cochran 6 Nov 00
Engineering Date

Don H. Smith 11/8/00
Quality Assurance Date

Wells B. Kaman 11/9/00
Chief, MDD Date

BACKGROUND

The National Library Service for the Blind and Physically Handicapped (NLS) of the Library of Congress administers a free library service to eligible residents of the United States and citizens living abroad who cannot hold, handle, or read traditional print media because of visual or physical handicaps.

Using federal funds, NLS annually publishes approximately 2,000 books and 70 magazines on cassettes, on discs, and in braille. Titles are selected to appeal to a wide variety of interests, and copyright permission is obtained from authors and publishers. Books and magazines are narrated and duplicated at a high-quality professional standard. The quantity produced of any title is dependent on anticipated reader demand.

Playback machines and their accessories are designed to facilitate convenient use by handicapped people and to provide maximum reliability under environmental conditions that are sometimes harsh and handling that may be technically unsophisticated or inadvertently abusive. The equipment plays program materials at noncommercial speeds: 8-1/3 rpm for discs and 15/16 ips, 4-track for cassettes. All materials and equipment in the program can be sent to users and returned to libraries postage free.

A cooperating network of 56 regional libraries and more than 100 subregional libraries circulates recorded and braille books to some 700,000 adults and children out of a potential three million eligible population. Magazine subscriptions are provided on a direct-mail basis from the manufacturers. Users must generally deal with service centers in distant cities with communication by mail or phone and little or no personal contact. Everything comes and goes through a mail-order system. Fifty percent of the users are over sixty-four years old, and many depend on the NLS program for their major source of entertainment and connection with the world; 95 percent read recorded materials, 5 percent read braille.

Users are informed about new books, magazines, and services through bimonthly publications, annual catalogs, and subject bibliographies produced by NLS, and through various publications produced and circulated by the regional and subregional libraries.

USER MATERIALS

Contractors who consider submission of a bid to produce books, equipment, or other program products should be cognizant of the consumer-responsive nature of the program, and that the specifications for these products have been developed to meet the special reader needs in the program. Materials are produced with those reader needs foremost in mind, and improved through constant monitoring and consumer input. Contractors are expected to familiarize themselves with the equipment-handling practices of blind and physically handicapped clientele and ensure that the equipment they produce will stand up under this type of use. A high degree of quality workmanship and product reliability is mandated by the product specification.

TABLE OF CONTENTS

	PAGE
1. SCOPE	1
2. REFERENCE DOCUMENTS	1
2.1 National Association of Broadcasters (NAB)	1
2.2 National Library Service for the Blind and Physically Handicapped (NLS)	1
2.3 Publications for Pronunciation	1
2.4 Publications for Speaking Written Language	1
3. REQUIREMENTS	2
3.1 Narration of the Original Master	2
3.1.1 The Narrator	2
3.1.1.1 Characteristics	2
3.1.1.2 Selection of the Narrator	2
3.1.1.3 Multiple Narrators	2
3.1.2 The Narration	2
3.1.2.1 Characteristics	2
3.1.2.2 Accuracy of Narration	3
3.1.2.3 Correct Pronunciation	4
3.1.3 Speaking the Written Text	4
3.1.3.1 When Notes Are Read	4
3.1.3.2 Location of Typographical Elements	5
3.1.3.3 Elements in the Written Text That May Be Omitted	5
3.1.4 Special Instructions	5
3.2 Announcements	5
3.2.1 Magazines for Adults	5
3.2.1.1 Beginning Announcements for Side One, Magazines for Adults	5
3.2.1.2 Beginning Announcements for Subsequent Sides, Magazines for Adults	7
3.2.1.3 Duration of Articles	7
3.2.1.4 Ending Announcements for Odd Sides, Magazines for Adults	7
3.2.1.5 Ending Announcements for Even Sides, Magazines for Adults	8
3.2.1.6 Ending Announcements for Last Side, Magazines for Adults	8
3.2.2 Magazines for Children, One Magazine on the Cassette	8
3.2.2.1 Beginning Announcements, Magazines for Children, One Magazine on the Cassette	8
3.2.2.2 Beginning Announcements for Subsequent Sides, Magazines for Children	10
3.2.2.3 Duration of Articles	10
3.2.2.4 Ending Announcements, Magazines for Children, One Magazine on the Cassette	10

NLS
Specification #304

3.2.3	Magazines for Children, Two Magazines on the Same Cassette	11
3.2.3.1	Beginning Announcements, Magazines for Children, Two Magazines on the Same Cassette	11
3.2.3.2	Beginning Announcements for Subsequent Sides, Magazines for Children	12
3.2.3.3	Duration of Articles	13
3.2.3.4	Ending Announcements, Magazines for Children, Two Magazines on the Same Cassette	13
3.3	Technical	14
3.3.1	Technical Characteristics of Cassette Copies	14
3.3.1.1	Sound Track Duration	14
3.3.1.2	Sound Track Placement	14
3.3.1.3	Sound Track Alignment	15
3.3.1.4	Tape Length	15
3.3.1.5	Sound Track Signal Levels	15
3.3.2	Audible Characteristics of Cassette Copy Sound Tracks	15
3.3.3	Acoustical Quality and Speech Intelligibility	16
3.3.4	Tone Indexing	16
3.3.4.1	Frequency and Record Level for Index Tones	16
3.3.4.2	Duration of Index Tones	16
3.3.4.3	Placement of Index Tones	17
4.	QUALITY ASSURANCE	17
4.1	Contractor Responsibilities	17
4.1.1	Monitoring the Narrator	17
4.1.2	Providing NLS with a Print Copy of the Magazine	17
4.2	NLS Responsibilities	17
4.2.1	Inspection of the Contractor	17
4.2.2	NLS Review of the Cassette Copy	18

1. SCOPE

NLS
Specification #304

This document describes requirements for narration and copies of cassette magazines produced under NLS contracts.

2. REFERENCE DOCUMENTS

2.1 National Association of Broadcasters (NAB)

Magnetic Tape Recording and Reproducing (Reel-to-Reel)
April 1965

The document cited above is available from:
Engineering Department
National Association of Broadcasters
1771 N Street NW
Washington, DC 20036

2.2 National Library Service for the Blind and Physically Handicapped (NLS)

NLS Specification 202
Cassette Book Duplication

NLS Engineering Section Advisory Document
Narration

The documents cited above are available from:
National Library Service for the Blind and Physically
Handicapped, Library of Congress
1291 Taylor Street, NW
Washington, DC 20542

2.3 Publications for Pronunciation

American Heritage Dictionary
Columbia Lippincott Gazetteer of the World
New Century Encyclopedia of Names
The Random House Dictionary of the English Language
Webster's Biographical Dictionary
Webster's Geographical Dictionary
Webster's New International Dictionary, second and third editions

2.4 Publications for Speaking Written Language
NBA Tape Recording Manual, third edition

3. REQUIREMENTS

NLS
Specification #304

3.1 Narration of the Original Master

3.1.1 The Narrator

3.1.1.1 Characteristics

Voice, speech, language, and narration skill should demonstrate those characteristics cited in the NLS publication "Narration". Final authority for judging acceptability of a narrator shall rest with the Head, NLS Quality Assurance Section.

3.1.1.2 Selection of the Narrator

- a. No person shall be used for narration of an original master recording of a magazine produced under NLS contracts unless the person is an established NLS narrator, or a narration audition for the person has been submitted to, and approved in writing by, the Head, NLS Quality Assurance Section.
- b. The narrator selected for each magazine article should possess, as much as possible, the vocal personality, vocal qualities, and vocal style that are most suited to the content of the magazine article.
- c. Any intention to solicit any author, agency administrator, or well-known individual for narration of any NLS material must be communicated in writing to, and approved in writing by, the Director, NLS, before any form of solicitation is made. NLS approval for a contractor to solicit an individual for narration of NLS material does not release the contractor from responsibility for providing NLS with an acceptable product.

3.1.1.3 Multiple Narrators

Multiple narrators may be used. No change of narrator shall occur during an article.

3.1.2 The Narration

3.1.2.1 Characteristics

Important characteristics of narration include, but are not restricted to:

- a. delivering the narration in a conversational manner
- b. conveying the sense of the text

- c. conveying the appropriate emotional levels of the text
- d. using emphasis, inflection, phrasing, stress, timing, and other appropriate speech art skills, to distinguish narrative from dialog, and characters from each other without calling undue attention to the manner of delivery
- e. ensuring that, if character voices are used, the voice of each character possesses the same ease, flow, and vocal range as the normal narrative voice and is appropriate to the text
- f. avoiding a delivery that is stilted, mechanical, or monotonous, unless one or more of these characteristics is an artistic necessity for specific sections of the text
- g. avoiding strained, unclear, inconsistent, or overplayed character interpretations, dialects, and accents
- h. avoiding narration characteristics that might become a distraction during extended periods of listening
- i. using appropriate conventions for speaking written language
- j. accomplishing the narration at a pace that enables the narrator to most naturally convey the energy, mood, sense, and style of the text

3.1.2.2 Accuracy of Narration

Final authority for judging accuracy of narration shall rest with the Head, NLS Quality Assurance Section. Unless otherwise directed by written instructions from NLS, the criteria for judging accuracy of narration include, but are not restricted to, the following:

- a. Narration shall conform to the print edition. The exceptions to speaking the written text as it is printed are those situations in which established convention for speaking written language takes precedence over adhering to the written text.
- b. Narration shall be word perfect for the following texts, as well as citations from them:

Sacred text of any religion, e.g. the Bible, the Torah, the Koran, etc.

Historical documents, e.g. the Declaration of Independence, the Constitution, etc.

Poems

- c. Errors in the written text identified during the recording process may be corrected, but only after consultation with the studio director.

3.1.2.3 Correct Pronunciation

Final authority for judging correct pronunciation shall rest with the Head, NLS Quality Assurance Section.

- a. Pronunciation shall be appropriate to the context in which the word is used and to the style and period of the text.
- b. Pronunciation of proper names, foreign-language words, and foreign-language phrases shall be accomplished with extreme accuracy and care, but without sounding "extremely careful."
- c. The publications in section 2.3 of this specification shall be the first sources consulted for general vocabulary pronunciation and usage. The contractor shall be responsible for all research necessary to ensure correct pronunciation if the publications in section 2.3 do not provide needed pronunciations. Specialized reference works (music, law, medicine, British speech, etc.) may be used as needed.
- d. If there is a question on NLS acceptance of a publication as an authoritative source for correct pronunciation, final authority for accepting any publication not cited in section 2.3 of this specification will rest with the Head, NLS Quality Assurance Section.

3.1.3 Speaking the Written Text

3.1.3.1 When Notes Are Read

- a. When notes are read within the article, they shall be read as near as is practical to the point in the written text where they occur. Notes shall normally be read at the end of a sentence, provided the nature of the written text makes it practical, but always in a manner that least interrupts the flow of spoken text.
- b. Notes shall generally be set off from the text by saying "Note: ... end of note." In situations where this is not appropriate, the contractor shall consult the NLS Quality Assurance Section.

3.1.3.2 Location of Typographical Elements

Typographical elements located throughout the written text, such as captions, charts, graphs, illustrations, etc., may be relocated in the spoken text, provided they are not necessary for clarity of the spoken text at the point where they occur in the written text. These elements may be relocated individually or read as a group at the end of each article, whichever is most appropriate to the specific article. Relocation of elements within an article shall be consistent.

3.1.3.3 Elements in the Written Text That May Be Omitted

Unless otherwise directed by written instructions from the NLS Production Control Section, the following elements in the written text may be omitted from the spoken text:

- a. elements that label, credit, or list visual materials without giving additional information
- b. index and index references
- c. sources

3.1.4 Special Instructions

Any special instructions will be provided in writing by the NLS Production Control Section when there are requirements for a magazine that are not covered in this specification. These instructions shall be followed. Changes in special instructions that will improve clarity of narration or usefulness of the magazine may be requested by the contractor, but any change must be approved in writing by NLS.

3.2 Announcements

3.2.1 Magazines for Adults

3.2.1.1 Beginning Announcements for Side One, Magazines for Adults

The following announcements shall be recorded at the beginning of side one, in the order stated:

- a. "Side one"
- b. Title of the magazine as printed on the title page
- c. Date of issue (include volume number and issue number in professional journals)

such as Foreign Affairs and Journal of Counseling and Development)

- d. "Copyright (date and holder or holders)."
- e. "Read by (name of narrator or narrators)" Give all names of narrators in order of appearance.
- f. "This magazine contains (number) pages on (number) sides."
- g. "This magazine is tone indexed. The beginning of each (name of item) will be indicated by a beep audible when your cassette player is in fast-forward or rewind. If you would like to skip over any remaining announcements or introductory material, place your cassette player in fast-forward until a beep is heard. Stop at that point to hear the table of contents, or at the second beep to locate the beginning of the magazine."
- h. The appropriate announcements shall be used for the following situations:

When only advertising has been omitted: "This recorded edition contains the entire text of the print edition, except for advertising."

When NLS provides special instructions to also omit other items: "This recorded edition contains the entire text of the print edition except for advertising and (name of item, or items) omitted by instruction of the National Library Service for the Blind and Physically Handicapped."
- i. "This magazine was produced for the National Library Service for the Blind and Physically Handicapped, Library of Congress. You will not be contacted by the producer of this magazine to verify cancellation or change of address. To cancel your subscription or if you change your address, please notify your cooperating network library. Allow six to eight weeks for address change. Send both old and new addresses."
- j. Table of contents

The table of contents shall be recorded at this point in the sequence of beginning announcements for side one, regardless of its location in the print edition.

The spoken table of contents shall list articles in the order of their appearance in the body of the magazine, regardless of the order of their appearance in the written table of contents. The spoken table of contents shall give the name of each article, the number of the page on which that article appears, the side on which that article begins, and the number of the index tone which identifies the specific article in the sound track, referenced from the beginning of the side on

which the article begins. The table of contents shall also list the approximate length of time of each article, e.g. "Paris in the Fall, page 73, side 2, tone 3, 15 minutes"

3.2.1.2 Beginning Announcements for Subsequent Sides, Magazines for Adults

The following announcements shall be recorded at the beginning of all sides, except side one, in the order stated:

- a. "Side (number)"
- b. Title of magazine
- c. Date of issue
- d. "This side contains (title of each article beginning on that side, the number of the index tone which identifies the specific article, referenced from the beginning of that side, and the approximate length of time of each article)"
- e. "Continuing with (title of article)", or, "Beginning with (title of article)"

3.2.1.3 Duration of Articles

At the beginning of each article or section (e.g., Letters to the Editor), following the title (and author, if present), insert the approximate reading time as follows:

"Reading time ____ minutes."

3.2.1.4 Ending Announcements for Odd Sides, Magazines for Adults

The following announcements shall be recorded at the end of each odd-numbered side, except the last side, in the order stated:

- a. "End of side (1, 3, 5, 7, etc.)"
- b. "To continue, turn the cassette over."

3.2.1.5 Ending Announcements for Even Sides, Magazines for Adults

The following announcements shall be recorded at the end of each even-numbered side, except the last side, in the order stated:

NLS
Specification #304

- a. "End of side (2, 4, 6, 8, etc.)"
- b. Sides 2, 6, 10, 14, etc. -- "To continue, change side selector switch and turn the cassette over."
- c. Sides 4, 8, 12, 16, etc. -- "Change side selector switch. This magazine is continued on the next cassette."

3.2.1.6 Ending Announcements for Last Side, Magazines for Adults

The following announcements shall be recorded on the last side at the end of the text, in the order stated:

- a. "End of (title of the magazine), for (date of issue)"
- b. "Recorded in the studios of (name of studios), for the Library of Congress, (month and year)."
- c. "Published by: (Publisher's name and address as it appears in the print edition). Further reproduction or distribution in other than a specialized format is prohibited."
- d. "If you experienced any difficulty with your copy of this magazine, please specify the problem on a postcard or letter addressed to Materials Development Division, National Library Service for the Blind and Physically Handicapped, Washington, D.C. 20542."

3.2.2 Magazines for Children, One Magazine on the Cassette

3.2.2.1 Beginning Announcements, Magazines for Children, One Magazine on the Cassette

The following announcements shall be recorded at the beginning of side one, in the order stated:

- a. "Side one"
- b. Title of the magazine as printed on the title page
- c. Date of issue
- d. "Copyright (date and holder or holders)"
- e. "Read by (name of narrator or narrators)" Give all names of narrators in order of appearance.

- f. "This magazine contains (number) pages on one side."
- g. "This magazine is tone indexed. The beginning of each (name of item) will be marked by a beep that you can hear when your cassette player is in fast-forward or rewind. If you would like to skip ahead, put your cassette player in fast-forward until you hear a beep. Stop at that point to hear the table of contents, or at the second beep to find the beginning of the magazine."
- h. The appropriate announcements shall be used for the following situations:
 - When only advertising has been omitted: "This recorded edition contains the entire text of the print edition, except for advertising."
 - When NLS provides special instructions to also omit other items: "This recorded edition contains the entire text of the print edition except for advertising and (name of item, or items) omitted by instruction of the National Library Service for the Blind and Physically Handicapped."
- i. Table of contents

The table of contents shall be recorded at this point in the sequence of beginning announcements for side one, regardless of its location in the print edition.

The spoken table of contents shall list articles in the order of their appearance in the body of the magazine, regardless of the order of their appearance in the written table of contents. The spoken table of contents shall give the name of each article, the number of the page on which that article appears, the side on which that article begins, and the number of the index tone which identifies the specific article in the sound track, referenced from the beginning of the side on which the article begins. The table of contents shall also list the approximate length of time of each article, e.g. "Paris in the Fall, page 73, side 2, tone 3, 15 minutes"

3.2.2.2 Beginning Announcements for Subsequent Sides, Magazines for Children

The following announcements shall be recorded at the beginning of all sides, except side one, in the order stated:

- a. "Side (number)"
- b. Title of magazine
- c. Date of issue
- d. "This side contains (title of each article beginning on that side, the number of the index tone which identifies the specific article, referenced from the beginning of that side, and the approximate length of time of each article)"
- e. "Continuing with (title of article)", or, "Beginning with (title of article)"

3.2.2.3 Duration of Articles

At the beginning of each article or section (e.g., Letters to the Editor), following the title (and author, if present), insert the approximate reading time as follows:

"Reading time ____ minutes."

3.2.2.4 Ending Announcements, Magazines for Children, One Magazine on the Cassette

The following announcements shall be recorded at the end of the text, in the order stated:

- a. "End of (title of magazine) for (date of issue)"
- b. "Recorded in the studios of (name of studios), for the Library of Congress, (month and year)."
- c. "Published by: (Publisher's name and address as it appears in the print edition). Further reproduction or distribution in other than a specialized format is prohibited."
- d. "This magazine was originally produced for the National Library Service for the Blind and Physically Handicapped, Library of Congress. You will not be contacted by the producer of this magazine to verify cancellation or change of address. To cancel your subscription or if you change your address, please notify your cooperating network library. Allow six to eight weeks for address change. Send both old and new addresses."
- e. "If you experienced any difficulty with this magazine, please specify the

problem on a postcard or letter addressed to Materials Development Division, National Library Service for the Blind and Physically Handicapped, Washington, D.C. 20542."

3.2.3 Magazines for Children, Two Magazines on the Same Cassette

In most cases, one magazine shall be recorded on sides one and two of the cassette, and a different magazine shall be recorded on sides three and four of the same cassette. The same magazine shall be recorded on the same side from issue to issue. If any issue is too long to fit these rules, then the two magazines will be recorded sequentially.

3.2.3.1 Beginning Announcements, Magazines for Children, Two Magazines on the Same Cassette

The following announcements shall be recorded at the beginning of side one for the first magazine and at the beginning of side three for the second magazine, whichever is appropriate, in the order stated:

- a. "Side one. This cassette contains two magazines. (Title of the first magazine) is on this side, and (title of the second magazine) is on side three. To hear (title of the second magazine) change side selector switch now."

or,

- "Side three. This cassette contains two magazines. (Title of the second magazine) is on this side, and (title of the first magazine) is on side one. To hear (title of the first magazine) change side selector switch now."
- b. Title of the magazine as printed on the title page
- c. Date of issue
- d. "Copyright (date and holder or holders)."
- e. "Read by (name of narrator or narrators)" Give all names of narrators in order of appearance.
- f. "This magazine contains (number) pages on one side."
- g. "This magazine is tone indexed. The beginning of each (name of item) will be marked by a beep that you can hear when your cassette player is in fast-forward or rewind. If you would like to skip ahead, put your cassette player in fast-forward until you hear a beep. Stop at that point

to hear the table of contents, or at the second beep to find the beginning of the magazine."

- h. The appropriate announcements shall be used for the following situations:

When only advertising has been omitted: "This recorded edition contains the entire text of the print edition, except for advertising."

When NLS provides special instructions to also omit other items: "This recorded edition contains the entire text of the print edition except for advertising and (name of item, or items) omitted by instruction of the National Library Service for the Blind and Physically Handicapped."

- i. Table of contents

The table of contents shall be recorded at this point in the sequence of beginning announcements for side one, regardless of its location in the print edition.

The spoken table of contents shall list articles in the order of their appearance in the body of the magazine, regardless of the order of their appearance in the written table of contents. The spoken table of contents shall give the name of each article, the number of the page on which that article appears, the side on which that article begins, and the number of the index tone which identifies the specific article in the sound track, referenced from the beginning of the side in which the article begins. The table of contents shall also list the approximate length of time of each article, e.g. "Paris in the Fall, page 73, side 2, tone 3, 15 minutes"

3.2.3.2 Beginning Announcements for Subsequent Sides, Magazines for Children

The following announcements shall be recorded at the beginning of all sides, except side one, in the order stated:

- a. "Side (number)"
- b. Title of magazine
- c. Date of issue
- d. "This side contains (title of each article beginning on that side, the number of the index tone which identifies the specific article, referenced from the beginning of that side, and the approximate length of time of

each article)"

- e. "Continuing with (title of article)", or, "Beginning with (title of article)"

3.2.3.3 Duration of Articles

At the beginning of each article or section (e.g., Letters to the Editor), following the title (and author, if present), insert the approximate reading time as follows:

"Reading time ____ minutes."

3.2.3.4 Ending Announcements, Magazines for Children, Two Magazines on the Same Cassette

The following announcements shall be recorded at the end of the text, in the order stated:

- a. "End of (title of magazine, date of issue)"
- b. "To read (title of the other magazine), rewind the tape to the beginning, and change side selector switch."
- c. "Recorded in the studios of (name of studios), for the Library of Congress, (month and year)."
- d. "Published by: (Publisher's name and address as it appears in the print edition). Further reproduction or distribution in other than a specialized format is prohibited."
- e. "This magazine was produced for the National Library Service for the Blind and Physically Handicapped, Library of Congress. You will not be contacted by the producer of this magazine to verify cancellation or change of address. To cancel your subscription or if you change your address, please notify your cooperating network library. Allow six to eight weeks for address change. Send both old and new addresses."
- f. "If you experienced any difficulty with this magazine, please specify the problem on a postcard or letter addressed to Materials Development Division, National Library Service for the Blind and Physically Handicapped, Washington, D.C. 20542."

3.3 Technical

3.3.1 Technical Characteristics of Cassette Copies

3.3.1.1 Sound Track Duration

- a. All sound tracks in magazines for adults shall be nominally equal in duration. Sound track duration shall be not more than 95 minutes, but not less than 30 minutes.
- b. If the duration of the sound track for the magazine exceeds 4 times 95 minutes, the magazine shall be on 2 cassettes with 8 sound tracks that are nominally equal in duration. If the duration of the sound track for the magazine exceeds 8 times 95 minutes, the magazine shall be on 3 cassettes with 12 sound tracks that are nominally equal in duration. If the duration of the sound track for the magazine exceeds 12 times 95 minutes, the magazine shall be on 4 cassettes with 16 sound tracks that are nominally equal in duration.
- c. Magazines for children are exceptions to requirements cited above. Each magazine for children shall be recorded in its entirety on a single sound track.

3.3.1.2 Sound Track Placement

Sound track placement shall conform to the following sequence:

- a. The first sound track on each cassette (side 1, 5, 9, 13, etc.) shall be recorded in channel one.
- b. The second sound track on each cassette (side 2, 6, 10, 14, etc.) shall be recorded in channel four.
- c. The third sound track on each cassette (side 3, 7, 11, 15, etc.) shall be recorded in channel three.
- d. The fourth sound track on each cassette (side 4, 8, 12, 16, etc.) shall be recorded in channel two.

3.3.1.3 Sound Track Alignment

- a. Sound tracks shall be aligned so that when a user stops at the end of a sound track and turns the cassette over, the next sound track shall begin from zero to five seconds after the cassette machine is placed in play

mode.

- b. The second sound track shall end within 15 seconds of the beginning of the first sound track. The end of the second sound track shall not extend past the beginning of the first sound track.
- c. The end of the third sound track may extend past the beginning of the second sound track, but the end of the fourth sound track shall not extend past the beginning of the first sound track.

3.3.1.4 Tape Length

The length of tape used in each cassette shall include the actual duration of program material, plus a section of blank audio tape with a nominal duration of 10 seconds at the beginning of side one and a section of blank audio tape with a nominal duration of 10 to 20 seconds at the end of side one or side three, whichever is longer.

3.3.1.5 Sound Track Signal Levels

The average signal level shall be uniform for the spoken text throughout an article or group of announcements. The average may differ from article to article, but the average for any article or group of announcements shall be between minus 9 VU and minus 5 VU.

3.3.2 Audible Characteristics of Cassette Copy Sound Tracks

When the cassette copy of a magazine issue is reviewed in the NLS Quality Assurance Section under conditions cited in section 4.2.2 of this specification, negative characteristics judged to be audible to an objectionable degree may cause rejection of the issue. Examples of such characteristics include, but are not restricted to:

- a. Crosstalk
- b. Distortion
- c. Hum
- d. Print-through
- e. Wow and Flutter
- f. Background noise in the narration environment
- g. Difference between a section of sound track that has a correction and any other

section of the same sound track

- h. Gaps, seams, or transients in edits
- i. Effects caused by sound processing devices (such as automatic gain controls, compressors, equalizers, etc.)
- j. Radio Frequency Interference (RFI)

3.3.3 Acoustical Quality and Speech Intelligibility

When the cassette copy of a magazine issue is reviewed in the NLS Quality Assurance Section under conditions cited in section 4.2.2 of this specification, it shall be judged for acoustical quality and speech intelligibility. Final authority for judging acceptability of acoustical quality and speech intelligibility of cassette copies shall rest with the Head, NLS Quality Assurance Section.

- a. A magazine issue may be rejected because sound tracks are judged to have a muffled, bassy, or tinny quality, an objectionable degree of sibilance, or other acoustical characteristics judged to be audible to an objectionable degree.
- b. The spoken text shall have good clarity in a sound track that has a clean, quiet background.

3.3.4 Tone Indexing

3.3.4.1 Frequency and Record Level for Index Tones

- a. All index tones shall be 50 Hertz.
- b. The signal level of all index tones in the cassette copy sound track shall be 10 VU below the average signal level of the spoken text.

3.3.4.2 Duration of Index Tones

- a. A single tone shall have a duration of not less than 5 seconds, but not more than 8 seconds.
- b. Double tones shall each have a duration of not less than 5 seconds, but not more than 6 seconds. The interval of silence between the two tones shall be not less than 2 seconds, but not more than 3 seconds.

3.3.4.3 Placement of Index Tones

- a. A single tone shall be recorded simultaneously with the voice within the last 10 seconds of the material preceding each indexed section.
- b. Double tones shall be recorded simultaneously with the voice within the last 15 seconds of the material preceding each indexed section.

4. QUALITY ASSURANCE

4.1 Contractor Responsibilities

4.1.1 Monitoring the Narrator

- a. All narration of original masters for magazines produced under NLS contracts shall be done with a monitor who is fluent in reading and speaking the language in which the text is printed. The monitor shall have an identical copy of the text used by the narrator.
- b. The monitor controls all technical operations during a recording session and is responsible for detecting any element that may affect the accuracy or consistency of narration, or the acoustical quality of the sound track. When such elements are detected, the monitor shall stop the recording session and take appropriate corrective measures.

4.1.2 Providing NLS with a Print Copy of the Magazine

The contractor shall provide the NLS Quality Assurance Section with a print copy of each magazine issue not later than one week after completion of the original master.

4.2 NLS Responsibilities

4.2.1 Inspection of the Contractor

- a. NLS reserves the right to:

Inspect quality assurance procedures on-site as they are used by the contractor to produce original master recordings of magazines and cassette copies of those recordings

Inspect plant facilities or manufacturing processes at any reasonable time

Inspect any process, procedure, or tests being performed

- b. The NLS representative shall have the authority, without advance notice, to select at random a sample of the magazines at any time during the course of the contract for testing to specification requirements.

NLS
Specification #304

4.2.2 NLS Review of the Cassette Copy

An audible characteristic is defined as an acoustical element in the sound track of a cassette copy that is audible when the copy is reviewed in the NLS Quality Assurance Section under the following conditions:

- a. The copy is played on a standard NLS cassette player that is electrically and mechanically adjusted to meet NLS performance requirements at 15/16 ips, and the output of the cassette player may be monitored with or without headphones
- b. The review is conducted in an NLS Quality Assurance Section review booth