#### **Audio Examination**

Date of Exam: C-number:

Place of Exam:

The <u>Handbook of Standard Procedures and Best Practices</u>
<u>for Audiology Compensation and Pension Exams</u> is
available online. (This is a PDF file. You need <u>Acrobat Reader</u>
to open pdf files. It is a free download.)

Narrative: An examination of hearing impairment must be conducted by a statelicensed audiologist and must include a controlled speech discrimination test (specifically, the Maryland CNC recording) and a pure tone audiometry test in a sound isolated booth that meets American National Standards Institute standards (ANSI S3.1. 1991) for ambient noise. Measurements will be reported at the frequencies of 500, 1000, 2000, 3000, and 4000 Hz. The examination will include the following tests: Pure tone audiometry by air conduction at 250, 500, 1000, 2000, 3000, 4000, and 8000 Hz, and by bone conduction at 250, 500, 1000, 2000, 3000, and 4000 Hz, spondee thresholds, speech recognition using the recorded Maryland CNC Test, tympanometry and acoustic reflex tests, and, when necessary, Stenger tests. Bone conduction thresholds are measured when the air conduction thresholds are poorer than 15 dB HL. A modified Hughson-Westlake procedure will be used with appropriate masking. A Stenger must be administered whenever pure tone air conduction thresholds at 500, 1000, 2000, 3000, and 4000 Hz differ by 20 dB or more between the two ears. Maximum speech recognition will be reported with the 50 word VA approved recording of the Maryland CNC test. The starting presentation level will be 40 dB re SRT. If necessary, the starting level will be adjusted upward to obtain a level at least 5 dB above the threshold at 2000 Hz, if not above the patient's tolerance level. The examination will be conducted without the use of hearing aids. Both ears must be examined for hearing impairment even if hearing loss in only one ear is at issue.

When speech recognition is 92% or less, a performance intensity function must be obtained.

## **Procedures for Obtaining a Modified Performance-Intensity Function**

- 1. The starting level is 40 dB re: SRT (speech reception threshold). The starting level will be adjusted upward to obtain a level at least 5 dB above the threshold at 2000 Hz, if not above the patient's tolerance level.
- 2. Present 25 words at 6 dB above and 6 dB below the starting level.
- 3. If recognition performance improves less than 6%, then maximum word recognition performance has been obtained.

**Example:** Starting level=50 dB HL. Initial performance=80%. Decrease level to 44 dB HL. Performance decreases to 76%. Increase level to 56 dB HL. Performance increases to 84%. Test level for full list=50 dB HL

4. If performance improves by 6% or more at the first 6-dB increment, then word recognition is measured using another 25 words at an additional 6-dB increment.

**Example:** starting level=50 dB HL. Initial performance=80%. Increase level to 56 dB HL. Performance improves to 88% (+8%). Increase level to 62 dB HL. Performance decreases to 84% (-4%). Test level for full list=56 dB HL

- 5. A full list (50 words) is then presented at the level of maximum performance. The word recognition performance at this level is reported as the speech recognition score. Only the best performance for a full list (50 words) will be reported.
  - **A. Review of Medical Records:** Indicate whether the C-file was reviewed.
  - **B. Medical History (Subjective Complaints):**

# Comment on:

- 1. Chief complaint.
- 2. Effects of the condition on occupational functioning and daily activities.
- 3. Pertinent service history.
- 4. History of military, occupational, and recreational noise exposure.
- 5. Pertinent family and social history; history of ear disease, head or ear trauma etc.
- 6. Tinnitus
  - a. Is there a claim for tinnitus (verify from examination request i.e. 2507? (yes/no)
  - b. Is there a current complaint of tinnitus?
     (yes/no) If yes, answer the following questions whether or not the condition is claimed.
  - Date and circumstances of onset.

- d. Whether it is constant or recurrent (intermittent). Current complaints only.
- e. If there is a claim and no current complaint, the audiologist must:
  - State when veteran last experienced tinnitus.
  - Describe the tinnitus experienced at that time.
  - Describe intervening course between onset and last episode, e.g. how frequently in a year does a veteran experience tinnitus.

# C. Physical Examination (Objective Findings):

1. Measure and record puretone thresholds in decibels at the indicated frequencies (air conduction):

RIGHT EAR

A\* B C D E \*\*

500 | 1000 | 2000 | 3000 | 4000 |

average

A\* B C D E \*\*

500 | 1000 | 2000 | 3000 | 4000 |

average

average

% right e	ear% left ear.
When only puretone results sho	uld be used to evaluate hearing
loss, the examiner, who must be	e a state-licensed audiologist,
should certify that language diffi	culties or other problems (specify
what the problems are) make th	•
average and speech discriminat	ion inappropriate.

2. Speech Recognition Score: Maryland CNC word list

# Thresholds should not exceed 100 decibels or the tolerance level.

<u>Pausing</u>: Examiners should pause when necessary during speech recognition tests, in order to give the veteran sufficient time to respond. This will ensure that the test results are based on actual hearing loss rather than on the effects of other problems that might slow a veteran's response. There are a variety of problems that

<sup>\*</sup> The puretone threshold at 500 Hz is not used in calculating the puretone threshold average for evaluation purposes but is used in determining whether or not, for VA purposes, hearing impairment reaches the level of a disability. Puretone thresholds should not exceed 105 decibels or the tolerance level. \*\* The average of B, C, D, and E.

might require pausing, for example, the presence of cognitive impairment. It is up to the examiner to determine when to use pausing and the length of the pauses.

Need for a modified performance-intensity function: The normal speech recognition performance is 94% or better for a full (50 word) list. If speech recognition is worse than 94% after presentation of a full list, then a modified performance-intensity function must be obtained to determine best performance (see Narrative for description of procedures).

When describing speech recognition performance, use these terms:

Percent	<b>Correct Description</b>
100-94%	Excellent (Normal)
92-80%	Good
78-70%	Fair
Less than 70%	Poor

# D. Diagnostic and Clinical Tests:

- Report middle ear status, confirm type of loss, and indicate need for medical follow-up. In cases where there is poor inter-test reliability and/or positive Stenger test results, obtain and report estimates of hearing thresholds using a combination of behavioral testing, Stenger interference levels, and electrophysiological tests.
- 2. Include results of all diagnostic and clinical tests conducted in the examination report.

### E. Diagnosis:

- Summary of audiologic test results. Indicate type and degree of hearing loss for the frequency range from 500 to 4000 Hz. For type of loss, indicate whether it is normal, conductive, sensorineural, central, or mixed. For degree, indicate whether it is mild (26-40 HL), moderate (41-54 HL), moderately severe (55-69HL), severe (70-89 HL), or profound (90+HL).
  - [For VA purposes, impaired hearing is considered to be a disability when the auditory threshold in any of the frequencies 500, 1000, 2000, 3000, and 4000 Hz is 40 dB HL or greater; or when the auditory thresholds for at least three of these frequencies are 26 dB HL or greater; or when speech recognition scores are less than 94%.]
- 2. Note whether, based on audiologic results, medical follow-up is needed for an ear or hearing problem, and whether there is a problem that, if treated, might cause a change in hearing threshold levels.

- 3. If there is a current complaint of tinnitus, indicate whether or not tinnitus is as likely as not a symptom associated with the hearing loss, if hearing loss is present.
- 4. If there is no hearing loss present; or the audiologist determines that it is as likely as not that tinnitus is associated with another medical condition; or the etiology of tinnitus cannot be determined on the basis of available information without resorting to speculation, so state. The VBA regional office will then determine whether further non-audiological examination is needed, based on their review of all evidence of record.

Signature:	Date:

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